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UNIVERSIDADE DE LISBOA

FACULDADE DE PSICOLOGIA

"DEVAGAR SE VAI AO LONGE": AVALIAÇÃO DA EFICÁCIA E DA QUALIDADE DA IMPLEMENTAÇÃO DE UM PROGRAMA DE PROMOÇÃO DE COMPETÊNCIAS SÓCIOEMOCIONAIS EM CRIANÇAS

Raquel Catarina Proença Raimundo

Tese orientada pela Professora Doutora Alexandra Marques Pinto e pela Professora Doutora Maria Luísa Lima especialmente elaborada para a obtenção do grau de doutor em Psicologia da Educação

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Era uma vez duas rãs que caíram numa taça de natas. No início, as duas rãs tentaram bater as patitas para chegarem à borda do recipiente. Mas, era inútil; por mais que se mexessem, não saíam do mesmo lugar e estavam cada vez mais atoladas.

Uma delas disse em voz alta:

- Já não aguento mais. É impossível sair daqui. Não se consegue nadar nesta pasta. Já que vou morrer, não vejo de que serve prolongar este sofrimento. Não faz sentido morrer cansada por causa de um esforço inútil.

Dito isto, deixou de bater com as patitas e afundou-se rapidamente, engolida pelo espesso líquido branco.

A outra rã, mais persistente ou talvez mais casmurra, disse para si mesma:

- É escusado! Não consigo avançar nesta pasta. No entanto, se vou morrer, prefiro lutar até ao meu último fôlego. Não quero morrer um segundo que seja antes da minha hora.

Continuou a dar às patas e a chapinhar sempre no mesmo lugar, sem avançar um centímetro sequer, durante horas e horas.

E de repente, de tanto bater com as patas e com as coxas, de tanto mexer e remexer, a nata transformou-se em manteiga. Surpreendida, a rã deu um salto e, patinando, chegou à borda do recipiente. Daí, pode regressar a casa, coaxando alegremente.

Jorge Bucay

(Adaptado)

Dedico este trabalho a todos aqueles que acredita(ra)m em mim e me ajuda(ra)m a transformar “a nata em manteiga”.

Desafio tão grande quanto escrever esta tese é o de agradecer às pessoas que fizeram parte desta longa viagem, com muitos percalços pelo caminho. Espero conseguir retribuir minimamente e fazer jus a todo o vosso apoio. Obrigada por estarem lá quando é preciso! Não teria sido possível, sem a vossa ajuda! Não teria sido possível, mesmo!

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DECLARAÇÃO

De acordo com o artigo 41º do Regulamento de Estudos Pós-Graduados da Universidade de Lisboa, aprovado pela Deliberação da Reitoria nº 1506/2006, esta dissertação engloba 4 artigos científicos submetidos para publicação em revistas internacionais indexadas, em colaboração com outros autores. Um dos artigos foi já publicado e um segundo artigo foi aceite para publicação. A primeira autora dos artigos declara que foi responsável pela recolha de dados, análise e interpretação dos resultados, assim como pela redação, submissão e revisão dos manuscritos dos artigos publicados e enviados para publicação.

Raquel Catarina Proença Raimundo

Resumo

O objetivo principal desta dissertação foi investigar o impacto e a qualidade da implementação do programa de promoção de competências sócioemocionais "Devagar se vai ao Longe", em crianças do 4º ano de escolaridade. No primeiro estudo foi feita a validação da versão portuguesa da escala de competência social das SSBS-2. Os resultados apoiaram a estrutura multidimensional da escala e evidenciaram boas propriedades psicométricas em 2 amostras (N=344, N=251). No segundo estudo analisou-se o impacto a curto prazo do programa universal, aplicado durante um ano a 213 alunos, enquanto 105 beneficiaram de um programa de *origami* durante o mesmo período. Registaram-se ganhos significativos em algumas competências sócioemocionais (relações com os pares e competência social). Os alunos do grupo de intervenção, com níveis médios no pré-teste, melhoraram mais significativamente no autocontrolo e nas relações com os pares do que os alunos do grupo de controlo. Os rapazes evidenciaram ganhos mais significativos no autocontrolo, na agressividade e nos problemas sociais do que as raparigas. Não houve diferenças significativas nos resultados relativamente ao estatuto socioeconómico. No terceiro estudo examinou-se o impacto a médio prazo numa subamostra (N=102) do estudo prévio, 10 meses depois. Os resultados revelaram ganhos significativos no desempenho académico posterior do grupo de intervenção. Pertencer ao grupo de intervenção amplificou o impacto do conhecimento emocional no desempenho académico posterior. Não foram encontrados "*sleeper effects*" relativamente ao conhecimento emocional e à ansiedade. No quarto estudo analisou-se a qualidade da fidelidade da implementação do programa no grupo de intervenção do segundo estudo (N=213). Registou-se um elevado nível de fidelidade da implementação (níveis bons de adesão, dose e envolvimento/compromisso dos alunos). O bom comportamento dos alunos foi promotor de níveis mais elevados de adesão ao programa e do

seu envolvimento/compromisso, o qual foi também promovido por níveis mais elevados de apoio/compromisso dos professores. A adesão associou-se positivamente com a melhoria de algumas competências sociais e uma diminuição dos comportamentos externalizantes.

Palavras-Chave: Aprendizagem Sócioemocional, Escolar, Intervenção, *Follow-Up*, Fidelidade da Implementação

Abstract

The main purpose of this dissertation was to investigate the impact of the social-emotional learning program "Slowly but Steadily", and its implementation quality, on 4th-grade children. In the first study, a Portuguese version of the social competence scale from the SSBS-2 was validated. The results supported the multidimensional structure of the scale and showed good psychometric properties in 2 samples (N=344, N=251). The second study analyzed the short-term impact of the universal program, applied to 213 pupils during one-year, while 105 controls followed an *origami* curriculum during the same period. There were significant intervention gains in some social-emotional competencies (peer relations and social competence). Intervention pupils with average pre-test scores gained more in self-management and peer relations than controls. Boys showed greater improvements in self-management, aggressiveness and social problems than girls. There were no significant differences in results regarding socio-economic status. The third study examined the mid-term impact of the program in a subsample (N=102) of the previous controlled pre-post investigation, 10 months later. Results revealed significant intervention gains in distal academic performance. Being in an intervention group also amplified the impact of emotional knowledge on later academic performance. No evidence of "sleeper effects" was found regarding emotional knowledge and anxiety. The fourth study analyzed the quality of implementation fidelity in the intervention group of the second study (N=213). A high level of implementation fidelity (good levels of adherence, dosage and pupil's engagement) was obtained. Better pupil behavior promoted higher levels of program adherence and pupil's engagement, which was also promoted by higher levels of teacher support and commitment to the program. Adherence was positively associated with an increase of some social competencies and a decrease of externalizing problems.

Key Words: Social-Emotional Learning, School-Based, Intervention, Follow-Up, Implementation Fidelity

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CAPITULO I

Introdução

Introdução Teórica

O campo de estudo da ciência preventiva constitui a base científica necessária para uma implementação eficiente e sustentada de programas preventivos. De entre as áreas científicas e profissionais que se têm debruçado sobre este campo de estudo contam-se a saúde pública, a enfermagem, a psicologia, o serviço social, a medicina e o desenvolvimento da criança e da família. O contexto educativo apenas abraçou a ciência preventiva um pouco mais tarde. Foi neste contexto, o qual fomentou a ligação entre a ciência preventiva e as intervenções escolares, que surgiu a área emergente da promoção de competências sócioemocionais, da qual o presente trabalho constitui um exemplo. Esta área emergente, apesar do seu cariz interdisciplinar, começou por estar particularmente ligada à saúde mental, tanto no que se refere aos esforços preventivos como à avaliação dos seus resultados (Merrell, 2010).

A Saúde e a Educação dos Jovens Portugueses

A preocupação relativa à saúde mental tem ganho relevância no panorama mundial. Os estudos epidemiológicos mais recentes demonstram que as perturbações psiquiátricas e os problemas de saúde mental não só se tornaram na principal causa de incapacidade como também representam uma das principais causas de morbilidade das sociedades atuais (Coordenação Nacional para a Saúde Mental [CNSM], 2008). A situação nacional parece ser ainda mais crítica, com Portugal a destacar-se como o país da Europa com maior taxa de incidência, próximo do líder mundial, os EUA, com 26.3% (Furtado, Ribeirinho, & Gaspar, 2010). Segundo o Estudo Epidemiológico Nacional de Morbilidade Psiquiátrica estima-se que

22.9% da população nacional manifeste sintomas de perturbação mental tendo já 43% sofrido de uma destas perturbações durante a vida (Furtado et al., 2010).

Para além dos custos humanos e sociais evidentes, os custos económicos, derivados não só do absentismo laboral e da baixa de produtividade bem como da sobrecarga dos serviços de saúde, traduzem-se em milhões de euros gastos em Portugal, direta ou indiretamente relacionados com as perturbações mentais (Ordem dos Psicólogos Portugueses, 2011). É por isso justo dizer-se que a sociedade portuguesa paga um preço humano, social e económico elevado, no que à saúde mental diz respeito.

A saúde dos jovens portugueses

Dados do HBSC (Health Behavior in School-aged Children), um estudo realizado em 2010, associado à Organização Mundial de Saúde, que contou com a participação de 44 países e que pretendeu estudar os estilos de vida dos adolescentes (6º, 8º e 10º anos de escolaridade) e os seus comportamentos nos vários cenários das suas vidas (Matos et al., 2012), revelaram que a saúde dos jovens portugueses refletia uma situação favorável, com melhorias em áreas como o consumo de tabaco, a violência e a sexualidade, por comparação com estudos realizados em anos anteriores. Contudo, alguns dados, embora não sendo alarmistas, continuam a ser preocupantes e merecem reflexão, como seja o aumento do consumo de drogas (haxixe, LSD, cocaína e *extasy*) e dos comportamentos sexuais de risco nos adolescentes mais novos, assim como o agravamento do padrão de consumo de bebidas alcoólicas (maior quantidade ingerida e maior embriaguez), especialmente nas raparigas (Instituto da Droga e da Toxicodepência [IDT], 2011).

Neste mesmo estudo, realizado de quatro em quatro anos, desde 1998, no nosso país, a maioria dos jovens revela satisfação com a vida, embora uma minoria preocupante refira ter

feito mal a si próprio (15.6%), manifestando sintomas psicológicos semanais, ou mesmo diários, de tristeza/depressão, irritação e nervosismo. Particularmente preocupante é o facto de mais de metade dos jovens referir ter assistido a situações de provocação na escola tendo optado, na sua maioria, por se afastar, sem intervir. De acordo com os dados mais recentes, as novas tecnologias têm potenciado novas formas de violência, com 15.9% dos jovens a revelarem ter sido atores de episódios de provocação por estas vias. Acrescente--se que a utilização das novas tecnologias tem conduzido a um maior isolamento social, registando-se um aumento do número de adolescentes que utilizam o computador mais de quatro horas por dia, bem como dos jovens que não saem à rua com os amigos (Matos et al., 2012).

A educação dos jovens portugueses

Há uma década, Portugal detinha um dos níveis mais elevados de abandono e insucesso escolar de entre os países da União Europeia. Por este motivo, o principal esforço do sistema educativo português alicerçou-se no combate a este flagelo, tendo alcançado melhorias substanciais. Segundo dados do Instituto Nacional de Estatística (INE, 2011), a taxa de retenção e desistência no Ensino Básico em Portugal continental de 1999/2000 a 2009/2010 diminuiu, no 1º ciclo, de 8.4% para 3.5%; no 2º ciclo de 12.7% para 7.5% e, no 3º ciclo, de 16.8% para 13.5%. Ainda assim, o estudo do HBSC revelou que um em cada sete alunos portugueses falta “às vezes” ou mesmo “muito” às aulas. Três em cada quatro jovens portugueses gostam da escola, sentido, contudo, mais stresse em relação aos trabalhos de casa, comparativamente com os jovens de outros países. De referir ainda a percentagem significativamente superior de alunos portugueses que consideram que os seus professores os acham pouco competentes do ponto de vista académico, por comparação com a generalidade dos países do estudo do HBSC, sendo este dado recorrente desde 1998 (Matos et al., 2010).

As Competências Sócioemocionais

A pertinência da promoção das competências sócioemocionais para o sucesso na vida

Às crianças em idade escolar é hoje exigido não só que interajam de forma apropriada com os pares como também que naveguem, por vezes, "nas águas revoltas, da inclusão e aceitação social" (Denham & Brown, 2010, p. 654). Gerir "como" e "quando" mostrar emoções torna-se assim crucial; igualmente importante é discernir com quem as mesmas poderão ser partilhadas. As competências sociais e emocionais surgem, desta forma, intrinsecamente interligadas. Tanto o sentimento de valorização e competência pessoal, como a capacidade de gerir emoções são desenvolvidos, em larga medida, através das interações com os outros. Do mesmo modo, a autoconfiança, a compreensão, expressão e regulação/gestão das emoções também conduzem a comportamentos sociais positivos e mais compensadores (Brown, Emmons, & Comer, 2010; Denham, Wyatt, Bassett, Echeveuia, & Kiox, 2009; Domitrovich, Cortes, & Greenberg, 2007; Greenberg, Kushe, Cook, & Quamma, 1995). É esperado que as crianças lidem com tarefas académicas cada vez mais complexas e que, simultaneamente, façam novas aprendizagens, transitando adequadamente entre matérias e que se tornem, naturalmente, mais autónomas relativamente à organização e gestão das tarefas escolares (Denham & Brown, 2010).

O interesse pela promoção das competências sócioemocionais desenvolveu-se a partir da consciência de que estas competências são essenciais para alcançar sucesso (Elksnin & Elksnin, 2004) não só na escola como, posteriormente, na vida adulta, dadas as crescentes exigências e desafios que a sociedade atual coloca (Payton et al., 2000) aos nossos jovens, tanto do ponto de vista cognitivo como também nos aspetos social e emocional (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). Um vasto conjunto de estudos tem-se pautado por chamar a atenção para as competências sócioemocionais enquanto variáveis não

só preditoras da saúde mental, como também do bem-estar e desempenho académico (Denham et al., 2009; Durlak et al., 2011), estando o funcionamento sócioemocional menos ajustado associado a diversas dificuldades comportamentais (Domitrovich et al., 2010), pessoais, sociais e académicas (Durlak et al., 2011).

O papel da escola na promoção das competências sócioemocionais

A promoção da saúde sócioemocional nas crianças, como parte integrante do seu desenvolvimento saudável, deverá ser uma prioridade nacional, à semelhança do que outros autores têm vindo a salientar nos seus países (Durlak et al., 2011). Idealmente, ela deveria ocorrer no seio familiar, desde cedo, com os pais a servirem de modelos positivos na educação de crianças que se tornariam assim adultos felizes e bem-sucedidos. Infelizmente, porém, nem todos estarão em pé de igualdade (Merrell & Gueldner, 2010), visto que muitas crianças não recebem em casa e na comunidade a aprendizagem social e emocional de que necessitam (Caldarella, Christensen, Kramer, & Kronmiller, 2009).

Por outro lado, o tempo considerável que os jovens passam nas instituições educativas, a importante influência em termos de socialização exercida pelas mesmas, a democratização do ensino e o consequente aumento da prevalência de alunos com problemas de saúde mental nas escolas, em comorbilidade com os problemas de aprendizagem (Domitrovich et al., 2010) transformaram as nossas escolas em serviços de saúde mental, por excelência, independentemente do grau de preparação e dos recursos que as mesmas têm para lidar com estes problemas (Merrell, 2010; Merrell & Gueldner, 2010). A Coordenação Nacional para a Saúde Mental (CNSM, 2008), com base no documento da Rede Europeia para a Promoção da Saúde Mental e a Prevenção das Perturbações Mentais, refere, como linha privilegiada de prevenção a implementação de programas de educação escolar sobre saúde mental,

nomeadamente os programas de desenvolvimento de competências pessoais e sociais. As escolas surgem assim como o ambiente ideal para a implementação de programas de prevenção (Cooke et al., 2007) que possam atuar eficazmente na promoção da saúde (Humphrey, Kalambouka, Wigelsworth, & Lendrum, 2010) e bem-estar dos jovens.

Alguns autores argumentam que a promoção do bem-estar sócioemocional das crianças não é um papel da educação em contexto escolar (Little & Hopkins, 2010) e que apenas serve para afastá-las da primeira prioridade que seria o conhecimento académico (Merrell & Gueldner, 2010). Contudo, as escolas são em si mesmas locais sociais e a aprendizagem é ela própria um processo social (Zins, Bloodworth, Weissberg, & Walberg, 2007). Seja ou não essa a intenção, todas as escolas ensinam competências sócioemocionais. A questão é se o fazem ou não de forma intencional, eficaz e positiva (Aber, Brown, Jones, & Roderick, 2010; Durlak et al., 2011; Greenberg et al., 2003) e em colaboração com as famílias e as comunidades (Durlak & Weissberg, 2010).

Não obstante o facto de a aprendizagem sócio emocional apresentar vantagens empiricamente sustentadas na promoção destes resultados (Conduct Problems Prevention Research Group [CPPRG], 2010), verifica-se que, tendencionalmente, o tempo e os recursos necessários para este tipo de intervenções não são disponibilizados devido à pressão adveniente da necessidade de obtenção de resultados académicos. Acresce que muitos programas e currículos utilizados nas escolas, apesar de bem-intencionados, não são sustentados por um quadro teórico coerente de referência, continuam sem apresentar evidências empíricas relativamente à sua eficácia ou são implementados com baixa fidelidade (Durlak et al., 2011; Merrell & Buchanan, 2006; Weissberg, Kumpfer, & Seligman, 2003).

A Aprendizagem Sócioemocional (SEL)

Durante a década de 90, solidificou-se a convergência dos esforços de prevenção com os esforços de promoção de competências específicas, nomeadamente o desenvolvimento de competências sociais e emocionais (Pittman, Irby, Tolman, Yohalem, & Ferber, 2001), reflectindo o reconhecimento de que a ausência de doença ou patologia não é sinónimo de saúde e bem-estar (Merrell & Gueldner, 2010). Segundo Greenberg e colaboradores (2003) o termo *social and emotional learning* (SEL), isto é, aprendizagem sócioemocional, foi criado por um grupo de investigadores e educadores presentes num encontro do Fetzer Institute, em 1994, originando assim um novo quadro concetual. Muitos destes indivíduos foram os fundadores da *CASEL – Collaborative and Academic, Social and Emotional Learning* [entre eles o próprio Daniel Goleman autor do célebre livro Inteligência Emocional (1995)], que até à data é a organização mais influente na promoção dos objetivos SEL (Merrell & Gueldner, 2010). O seu guia, recentemente publicado, disponibiliza um enquadramento sistemático atualizado para avaliar a qualidade dos programas SEL implementados em turmas do pré-escolar e do 1º ciclo do ensino básico (Collaborative for Academic Social and Emotional Learning [CASEL], 2012).

Não existe uma definição oficial de SEL (Merrell & Gueldner, 2010), mas o seu quadro concetual abrange uma combinação de comportamentos, cognições e emoções (Zins & Elias, 2006) e refere-se aos:

> processos através dos quais as crianças e os adultos adquirem e aplicam eficazmente o conhecimento, as atitudes e as competências necessárias para compreender e gerir emoções, para fixar e alcançar objetivos positivos, sentir e mostrar empatia em relação aos outros, estabelecer e manter relacionamentos positivos e tomar decisões responsáveis (CASEL, 2012, p. 4).

A curto prazo, os programas SEL visam a promoção da autoconsciência, do autocontrolo, da consciência social, dos relacionamentos interpessoais e da tomada de decisão responsável nos estudantes, assim como uma melhoria das atitudes e crenças relativamente a si próprios, aos outros e à escola. Espera-se que estas melhorias sirvam de base para um melhor ajustamento e desempenho académico que se irá refletir numa melhoria dos comportamentos sociais e das relações com os pares, numa redução dos problemas de comportamento e de stresse emocional e, consequentemente, numa melhoria das notas académicas e dos resultados nos testes escolares (CASEL, 2012).

O foco central das intervenções SEL é, por um lado, a prevenção e promoção universal, isto é, a prevenção de problemas comportamentais (Harlacher & Merrell, 2010) através da promoção de competências sócioemocionais (Zins & Elias, 2006) e académicas das crianças e dos adolescentes em contexto escolar (Linares et al., 2005; Merrell & Gueldner, 2010) de um modo apropriado do ponto de vista desenvolvimentista, contextual e cultural (Durlak et al., 2011). Por outro lado, as intervenções SEL também ambicionam estabelecer ambientes de aprendizagem seguros e cuidadores envolvendo iniciativas com os pares e com a família, melhorando a gestão das turmas e as práticas educativas ao mesmo tempo que fomentam atividades que promovam o envolvimento de toda a comunidade escolar (Durlak et al., 2011).

Evidências empíricas relativamente ao impacto das intervenções SEL

O campo das SEL tem conseguido agregar um impressionante conjunto de estudos (Durlak et al., 2011; Humphrey, Kalambouka, Wigelsworth, Lendrum, Lennie, et al., 2010; Merrell, Juskelis, Tran, & Buchanan, 2008), cujos resultados têm permitido classificar vários programas como empiricamente validados (CASEL, 2012; Rimm-Kaufman & Chiu, 2007),

evidenciando-os como uma das intervenções mais bem-sucedidas na promoção do desenvolvimento positivo dos estudantes (CASEL, 2012). Várias revisões e meta-análises que incluem componentes de promoção de competências sócioemocionais e que se centram na prevenção do abuso de drogas (Tobler et al., 2000), da violência e do comportamento antisocial (Hahn et al., 2007; Mihalic, Fagan, Irwin, Ballard, & Elliot, 2004; Park-Higgerson, Perumean-Chaney, Bartolucci, Grimley, & Singh, 2008; Wilson, Gottfredson, & Najaka, 2001; Wilson & Lipsey, 2007; Wilson, Lipsey, & Derzon, 2003), assim como na promoção da saúde mental (Adi, Killoran, Janmohamed, & Stewart-Brown, 2007; Durlak & Wells, 1997; Greenberg, Domitrovich, & Bumbarger, 2001; Barlow, Tennant, Goens, Stewart-Brown, & Day, 2007) e do desenvolvimento positivo dos jovens (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2002), evidenciaram que, tanto as intervenções universais, como as intervenções seletivas podem reduzir substancialmente a prevalência de problemas comportamentais e o número de ocorrências futuras, assim como promover fatores que previnam a deterioração de competências na população infanto-juvenil (Elias, Zins, Graczyk, & Weissberg, 2003; Greenberg, 2010; Linares et al., 2005).

As intervenções universais em contexto escolar bem delineadas e cuidadosamente implementadas (Dane & Schneider, 1998; Diekstra, 2008; Domitrovich & Greenberg, 2000; Durlak & DuPre, 2008; Durlak & Weissberg, 2010; Dusenbury, Brannigan, Falco, & Hansen, 2003), embora apresentando diferentes abordagens, focos, estratégias de intervenção, populações escolares e evidências acerca da sua eficácia em termos comportamentais (Merrell et al., 2008), têm-se mostrado eficazes. Essa eficácia tem-se traduzido não só na melhoria das competências sócioemocionais das crianças, assim como no seu desempenho académico, ao mesmo tempo que se verifica uma redução dos problemas de comportamento externalizante e internalizante (Catalano et al., 2002; Diekstra, 2008; Durlak & Weissberg, 2010; Durlak &

Wells, 1997; Durlak et al., 2011; Faggiano et al., 2008; Greenberg et al., 2001; Greenberg et al., 2003; Tobler et al., 2000; Wilson et al., 2001).

Durlak e colaboradores (2011) levaram, recentemente, a cabo o único estudo de meta-análise exclusivamente centrado em programas SEL universais implementados em contexto escolar. Os resultados desse estudo evidenciaram que, comparativamente com os alunos nos grupos de controlo, os alunos entre os cinco e os 18 anos que participaram em programas universais SEL, melhoraram significativamente as suas competências sócioemocionais; as atitudes relativamente a si próprios, aos outros e à escola; os comportamentos pró-sociais; o desempenho académico, reduzindo os problemas externalizantes e internalizantes. Apesar de apenas 15% dos estudos reportarem dados de *follow-up*, estes resultados permaneceram significativos após um período de tempo igual ou superior a 6 meses. Os programas SEL provaram eficácia em todos os níveis de ensino e em escolas urbanas, suburbanas e rurais, embora tenham sido menos frequentemente analisados em escolas secundárias e em escolas rurais. O impacto das intervenções SEL é muito semelhante, chegando mesmo, em alguns casos, a ser superior a outros tipos de intervenções universais, especialmente no que diz respeito às melhorias obtidas nas competências sócioemocionais (Merrell, 2010), ainda que a média da magnitude dos efeitos dos restantes resultados possa ser considerada mais modesta.

Não obstante a considerável base empírica que apoia a tese do impacto positivo das intervenções em contexto escolar nos resultados comportamentais e académicos (Catalano et al., 2002; Greenberg et al., 2001), sabe-se muito pouco sobre o modo como as características dos alunos os levam a beneficiar de forma distinta dos programas (Durlak et al., 2011; Greenberg, 2010; Weissberg et al., 2003), ou seja, desconhecem-se os eventuais efeitos moderadores (CPPRG, 2010; Durlak et al., 2011; Greenberg et al., 2001), com os estudos a evidenciarem resultados contraditórios relativamente às variáveis género, idade, estatuto

socioeconómico e nível inicial de competências e problemas externalizantes e internalizantes (Raimundo, Marques-Pinto, & Lima, in press). Mais ainda, a literatura reporta uma escassez de estudos de *follow-up*, especialmente fora do contexto norte-americano (Diekstra, Sklad, Gravesteijn, Ben, & Ritter, 2008; Durlak et al., 2011; Weare & Nind, 2011).

Características dos programas SEL eficazes

Não há programas "milagrosos" que consigam produzir resultados positivos em todos os domínios sociais, emocionais e académicos. Contudo, são conhecidas algumas características relacionadas com as intervenções que se têm destacado pelo impacto na melhoria da sua eficácia.

De acordo com a perspetiva desenvolvimentista e com as evidências empíricas, os programas SEL, não só devem começar cedo na vida das crianças (Durlak & Wells, 1997; Gross, 2010), como devem igualmente abranger vários anos de escolaridade (CASEL, 2012; Greenberg et al., 2003; Jones, Brown, Hoglund, & Aber, 2010; Linares et al., 2005; Merrell & Gueldner, 2010), conquanto o estudo de meta-análise de Durlak e colaboradores (2011) tenha revelado que apenas 23% dos programas teriam duração superior a um ano. Os programas devem ainda ser adequados do ponto de vista cultural e desenvolvimentista (através de um currículo em espiral), devendo igualmente promover a generalização das novas competências aprendidas (CASEL, 2012; Durlak et al., 2011; Greenberg et al., 2003; Gross, 2010; Merrell & Gueldner, 2010; Payton et al., 2000; Weissberg et al., 2003) e incluir um manual escrito no qual esteja especificado o modelo concetual e os procedimentos a adotar (Diekstra, 2008). De salientar também a importância das práticas SAFE, isto é, que os programas assegurem a utilização de uma sequência coordenada de atividades; sob formas ativas de aprendizagem com a utilização de materiais e atividades atrativas e mais

experienciais e menos didáticas (Curtis & Norgate, 2007; Gross, 2010; Lendrum, Humphrey, Kalambouka, & Wigelsworth, 2009); que dediquem tempo e atenção suficientes ao desenvolvimento de competências sócioemocionais com gestão flexível dos tempos atribuídos às sessões (Curtis & Norgate, 2007; Gross, 2010) e que apresentem ainda objetivos SEL claros e específicos (Durlak et al., 2011; Gross, 2010).

Toda a comunidade escolar (professores, professores de complemento curricular, funcionários, vigilantes de refeitório e outros agentes da comunidade educativa) deverá ser envolvida no projeto (Curtis & Norgate, 2007; Diekstra, 2008; Gross, 2010; Merrell & Gueldner, 2010), bem como os pais (Gross, 2010; Lendrum, Humphrey, Kalambouka, & Wigelsworth, 2009; Merrell & Gueldner, 2010). É também essencial a formação e o desenvolvimento dos elementos da comunidade envolvidos, a supervisão, não se devendo descurar o apoio técnico continuado/consultadoria (Dane & Schneider, 1998; Domitrovich & Greenberg, 2000; Dusenbury et al., 2003; Gross, 2010; Merrell & Buchanan, 2006; Merrell & Gueldner, 2010; Mihalic, Fagan, & Argamaso, 2008).

O desenvolvimento de uma intervenção baseada em evidências empíricas relativamente à sua eficácia é uma condição necessária, mas não suficiente (Durlak et al., 2011; Merrell & Buchanan, 2006). A qualidade de uma intervenção e a forma como é implementada é especialmente importante (CASEL, 2012) e é conhecida por promover o desenvolvimento sócioemocional (Durlak et al., 2011), estando uma maior fidelidade de implementação dos programas relacionada com resultados mais significativos (Dane & Schneider, 1998; Domitrovich & Greenberg, 2000; Durlak & DuPre, 2008; Dusenbury et al., 2003). Os programas SEL bem-sucedidos devem ser cuidadosamente planeados, implementados com fidelidade e continuamente avaliados (Dane & Schneider, 1998; Domitrovich & Greenberg, 2000; Durlak & DuPre, 2008; Durlak et al., 2011; Dusenbury et

al., 2003; Lendrum et al., 2009; Merrell & Gueldner, 2010; Sanetti et al., 2011), para assegurar que são implementados de acordo com a intenção do autor (Humphrey, Lendrum, & Wigelsworth, 2010). Para que as intervenções sejam bem-sucedidas devem, em primeiro lugar, realizar-se estudos de eficácia, seguidos de estudos de eficiência e, por último, estudos de disseminação (Flay et al., 2005) a nível regional, nacional ou até mesmo alargados a outros países. Quando tal não é cumprido e se saltam etapas, as intervenções podem não ser eficazes na melhoria dos resultados comportamentais e académicos (Hallam, 2009; Humphrey, Lendrum, et al., 2010).

É ainda importante que os programas tenham validade social, isto é, que os seus objetivos, procedimentos e resultados (Merrell, 2010) respondam às exigências das escolas, que façam sentido para os professores, que sejam aceites pelos alunos e que se ajustem ao currículo existente (Little & Hopkins, 2010). Alguns programas podem conter várias componentes além da escolar, como seja uma componente familiar e/ou comunitária, contudo os custos elevados inerentes aos mesmos aconselham a sua utilização apenas em intervenções seletivas e indicadas (Greenberg, 2010).

As Intervenções SEL no Mundo

As Intervenções SEL no Contexto Norte-Americano

Não se pode abordar as SEL sem mencionar a sua implementação e avaliação nos Estados Unidos da América, uma vez que a esmagadora maioria (87%) dos estudos relativos à eficácia destes programas decorreram em solo norte-americano (Diekstra, 2008; Durlak et al., 2011; Zeidner, Roberts, & Matthews, 2002). Inicialmente, os programas foram implementados apenas em algumas escolas com vista a avaliar o seu impacto (CASEL, 2012). Posteriormente, o campo das SEL foi experienciando uma evolução substancial e começou a

ser alvo de um crescente interesse nacional (CASEL, 2012; Durlak et al., 2011; Merrell & Gueldner, 2010), com impacto em termos legislativos em alguns estados norte-americanos, os quais começaram a exigir às escolas, como parte dos objetivos de aprendizagem para os seus alunos, um plano de implementação destes programas (Durlak et al., 2011; Merrell & Gueldner, 2010).

No seu mais recente guia, a CASEL (2012) reporta um conjunto muito significativo de programas SEL implementados no 1º ciclo, entre os quais se encontram o PATHS – Promoting Alternative THinking Strategies (Greenberg et al., 1995; CPPRG, 2010), o Caring School Community (Battisch, Schaps, & Wilson, 2004), o RCCP - Resolving Conflict Creatively Program (Aber, Brown, & Jones, 2003), o Responsive Classroom (Rimm-Kaufman & Chiu, 2007), o RULER Approach (Brackett, Rivers, Reyes, & Salovey, 2012) e o Second Step (Frey, Nolen, Edstrom, & Hirschstein, 2005). A CASEL (2012) recomenda apenas a implementação de programas SEL norte-americanos que contenham as seguintes características: 1) que sejam programas bem delineados, implementados em sala de aula, que promovam de forma sistemática as competências sócioemocionais dos alunos assim como oportunidades de as colocarem em prática e ainda que ofereçam programas plurianuais; 2) que providenciem uma formação e outros apoios de elevada qualidade e um apoio técnico contínuo que assegure uma adequada implementação; 3) que sejam baseados em evidências empíricas com, pelo menos, uma avaliação cuidadosamente conduzida (a qual deverá incluir um grupo de controlo, além da avaliação antes e após a implementação) que documente o impacto positivo no comportamento dos alunos e/ou no seu desempenho académico.

Após ver comprovada a eficácia das iniciativas SEL, a preocupação norte-americana centra-se, cada vez mais, na melhor forma de disseminar estas intervenções a nível distrital,

estadual e nacional (CASEL, 2012). Este cenário está ainda muito longe da realidade no contexto europeu.

As Intervenções SEL no Contexto Europeu

Como a esmagadora maioria das investigações que integram estudos de meta-análise de programas de educação sócioemocional em contexto escolar são provenientes dos Estados Unidos da América e os restantes quase sempre são originários de países Anglo-Saxónicos (particularmente do Canadá e da Austrália), a "internacionalização" dos resultados encontrados é amplamente posta em causa. Em especial a generalização das conclusões a outros contextos educativos, sociais e nacionais, os quais têm uma influência significativa na eficiência dessas intervenções (Diekstra, 2008; Weare & Gray, 2003; Zeidner et al., 2002).

A União Europeia começou, recentemente, a priorizar a saúde mental na sua agenda, em particular das crianças e jovens (Weare & Nind, 2011), encontrando-se a desenvolver estratégias, intervenções, projetos e princípios com vista à promoção da mesma na Europa. Contudo, o conhecimento sobre a promoção da saúde mental nas escolas Europeias é muito espartilhado. De igual modo não existem agências nacionais que reúnam informação conjunta acerca das intervenções, de forma equivalente ao trabalho desenvolvido pela CASEL nos Estados Unidos da América (Weare & Nind, 2011). Tentativas mais recentes de apresentar uma revisão deste campo de estudo na Europa centraram-se maioritariamente em estudos de casos ilustrativos em diferentes países (Fundacion Marcelino Botin, 2008, 2011), mais do que numa revisão sistemática de estudos (Weare & Nind, 2011).

Paralelamente, poucas iniciativas se baseiam em evidência científica, em virtude da maioria não ter sido delineada ou avaliada de forma criteriosa, atendendo aos padrões de uma revisão sistemática. As intervenções, quanto muito, abarcam avaliações antes e após a

implementação e praticamente não integram grupos de controlo (Weare & Nind, 2011). Alguns estudos conduzidos no Reino Unido alertam ainda para o perigo de ausência de impacto no comportamento e desempenho académico dos jovens quando as intervenções são disseminadas a nível nacional, sem terem sido objeto de estudos prévios de eficácia, como sucedeu com a implementação de *Social and Emotional Aspects of Learning* (Hallam, 2009; Humphrey, Lendrum, et al., 2010).

A Promoção de Competências Sócioemocionais em Portugal

Em Portugal, a área da promoção das competências sócioemocionais começou na década de 90 a atrair inúmeros profissionais devido à necessidade, sentida "no terreno", de implementação dos mesmos, tanto em contexto escolar como em contexto comunitário, o que é revelador da sua elevada validade social. Não obstante ter surgido um número muito significativo de programas universais ou conjunto de atividades promotoras destas competências desenvolvidas por diversas entidades (ex.: ARISCO, Juntas de Freguesia), a publicação de estudos relativos à eficácia das mesmas é quase inexistente até à data, excetuando os trabalhos publicados por Matos (1997a), Moreira, Crusellas, Sá, Gomes e Matias (2010), Pereira e Moreira (2000) e Vieira (1997). Pontualmente surgem estudos não publicados referentes à satisfação dos alunos e/ou professores relativamente às intervenções, sendo as mesmas apresentadas como critério de sucesso e, por vezes, até mesmo de eficácia o que constitui uma fragilidade metodológica (Zeidner et al., 2002).

A promoção de competências sócioemocionais começou por se focar, predominantemente, no treino de competências sociais, tendo surgido de forma mais expressiva em 1997, com a publicação pelo Ministério da Educação, do Manual do Programa de Promoção e Educação para a Saúde, coordenado por Matos (1997b). Este programa,

pioneiro em Portugal e que terá resultado de 10 anos de investigação de Matos incluindo os trabalhos conducentes à sua tese de doutoramento (1993), já apresentava como vetores: a importância do caráter preventivo e promotor de competências, por oposição a intervenções mais remediativas; a utilidade destas competências serem promovidas em contexto escolar com grupos sociais "naturais", com o intuito de se intervir não só com o indivíduo, mas também sobre o seu ambiente relacional; e a necessidade de formação de professores para implementação do programa. Os seus conteúdos baseavam-se na comunicação interpessoal verbal e não verbal, na resolução de problemas e gestão de conflitos e na promoção de competências sociais básicas e de assertividade. A implementação ao longo de sete meses, feita com 60 alunos do 1º, 2º e 3º ciclos do ensino básico, permitiu observar ganhos sociométricos significativos e melhorias regulares no comportamento social durante as sessões (Matos, 1997a).

No mesmo ano foi publicado um estudo de Vieira (1997) no qual participaram 428 crianças, sobre a implementação de um programa ao longo de 14 semanas, construído com o objetivo de alterar o estilo de relacionamento interpessoal de alunos provenientes de uma escola urbana e outra rural do 2º ciclo. Os resultados revelaram uma diminuição dos níveis de agressividade dos alunos provenientes dos grupos de intervenção de ambas as escolas, comparativamente com os alunos dos grupos de controlo, assim como uma melhoria da assertividade dos alunos do grupo de intervenção da escola do meio rural.

Em 2000, Pereira e Moreira apresentam um estudo com 109 crianças do 4º ano de escolaridade, centrado nos resultados relativos à implementação do programa "Crescer a Brincar". Os autores pretendiam que o programa produzisse um efeito direto positivo nos níveis de assertividade, na capacidade de resistir à pressão de pares e na tomada de decisão, assim como e um efeito indireto nos níveis de depressão e no autoconceito das crianças. Os

resultados evidenciaram uma tomada de decisão mais adequada e níveis mais elevados de assertividade nas crianças do grupo experimental, comparativamente com as do grupo de controlo.

Apesar da sua importância, devida ao facto de serem pioneiros em Portugal na abordagem temática da eficácia de um programa de promoção de competências sócioemocionais, estes três trabalhos enfermam de um conjunto de fragilidades metodológicas. Concretamente, a) a utilização de instrumentos e metodologias de avaliação, não validadas, ou que avaliavam aspetos não trabalhados nos programas, limitando a utilidade dos resultados encontrados (Matos, 1997a; Pereira & Moreira, 2000; Vieira, 1997); b) o recurso à recolha de informação para avaliação só de heterorrelato (Matos, 1997a) ou autorrelato (Pereira & Moreira, 2000; Vieira, 1997); c) e a inexistência de grupos de controlo (Matos, 1997a) ou a inclusão de grupos de intervenção e controlo que diferiam na sua composição de género, nível inicial de problemáticas (Pereira & Moreira, 2000) ou idade (Vieira, 1997). No estudo de Pereira e Moreira (2000) apenas foi possível implementar oito das 12 sessões inicialmente previstas, no de Vieira (1997) os alunos dos grupos de intervenção eram todos voluntários e no de Matos (1997a) verifica-se uma inconsistência entre defender a necessidade de trabalhar com todos os alunos numa turma – grupos sociais "naturais" (1997b) e a escolha de um grupo mais reduzido de jovens (oito a 15) para realização da intervenção.

Durante a última década podemos referir a publicação de apenas mais um artigo (Moreira et al, 2010) que incidiu sobre uma versão mais desenvolvida e atualizada do programa "Crescer a Brincar", aplicada pelos próprios professores das turmas, com o apoio de manuais destinados aos professores e aos alunos. Este estudo inclui uma amostra muito considerável de crianças do 1º ao 4º ano de escolaridade, superior ao milhar, sem que no

entanto esteja clarificado se o estudo é longitudinal, ou seja, se as crianças da amostra permaneceram as mesmas do 1º ao 4º ano de escolaridade. O programa centra-se na melhoria dos níveis de autocontrolo, de autoestima, de identificação e diferenciação emocional, das competências sociais, da regulação das emoções e de tomada de decisão. Neste trabalho, os autores parecem ter reconcetualizado a base teórica na qual o programa é baseado, passando da prevenção de comportamentos de risco e promoção de fatores de promoção para o quadro teórico das SEL. O estudo continua também a enfermar de alguns dos problemas metodológicos crónicos da área: a) apesar da designação constitui mais um conjunto de atividades "avulso" que cada professor seleciona do que um programa estruturado em sessões e implementado de forma sistemática, com utilização de uma sequência coordenada de atividades, tal como preconizado pela CASEL (2003; Durlak et al., 2011); b) a avaliação é realizada apenas pelos professores, que são também os implementadores do programa, o que aumenta a probabilidade de um efeito de expetativa (Linares et al., 2005), constituindo uma ameaça à validade interna do programa (Rimm-Kaufman & Chiu, 2007); c) verifica-se uma escassez de instrumentos de avaliação validados, com os estudos relativos à validação das escalas construídas pelos autores a remeterem para os manuais de atividades das crianças; a escassez de instrumentos de avaliação validados, com os estudos relativos à validação das escalas construídas pelos autores a remeterem para os manuais de atividades das crianças; d) o estudo abrange quatro anos, porém em cada ano foram avaliadas variáveis e grupos de crianças distintos; e) não foram controladas as variáveis sociodemográficas relativas às crianças do estudo.

As intervenções SEL em Portugal

Os primeiros programas SEL universais, implementados em contexto escolar e construídos de raiz de acordo com os princípios da CASEL (2003) começaram a surgir em Portugal a partir de 2004 com a adoção experimental de um programa de desenvolvimento de competências sócioemocionais de 12 sessões aplicado junto de alunos do 3ºciclo. Este programa denominado "Atitude Positiva" deu origem, no ano seguinte, a uma intervenção mais ampla, tratando-se de um projeto com o mesmo nome, estando a ser desenvolvido pelo Académico de Torres Vedras em escolas de 1º, 2º e 3º ciclos do respetivo concelho. Os custos inerentes à implementação do programa têm sido suportados pela Câmara Municipal de Torres Vedras, após um apoio inicial do Instituto da Droga e da Toxicodependência. Apesar de ter envolvido um número muito significativo de alunos (3574) e de os resultados relativos ao seu impacto terem sido apresentados num extenso conjunto de comunicações nacionais e internacionais (Coelho & Sousa, 2007, 2012), não se regista, até à data, nenhuma publicação escrita sobre o referido programa.

A primeira referência a uma visão da educação sócioemocional em Portugal, publicada numa análise internacional surgiu apenas recentemente (Faria, 2011). Esta análise internacional inclui trabalhos de diversos países, maioritariamente europeus. Faria (2011) aborda as mudanças sociais e políticas em Portugal nas últimas décadas que permitiram a inclusão da educação pessoal e social em disciplinas curriculares, referindo também dois exemplos de escolas com um enfoque holístico e integrador que privilegiam a promoção destas competências. A autora faz ainda referência ao programa de intervenção SEL "Devagar se vai ao Longe" de Raimundo (2007), criado no âmbito do presente trabalho de doutoramento, como exemplo de um programa Português baseado nos princípios orientadores da CASEL (2003).

Quase década e meia após terem surgido as primeiras publicações é possível referir que os estudos relativos à avaliação da eficácia dos programas de promoção de competências sócioemocionais em Portugal são praticamente inexistentes, tendo os estudos publicados até à data apresentado fragilidades metodológicas de índole vária. Paralelamente, nenhum estudo português apresenta dados relativos ao impacto dos programas a médio e/ou longo prazo, nem existem registos relativos à avaliação do processo de implementação de programas desta natureza, ignorando-se igualmente a sua influência no impacto dos mesmos.

Desenho da Investigação e Enquadramento dos Estudos

O objetivo geral deste trabalho de investigação foi o de construir, implementar e avaliar a eficácia a curto e médio prazo do programa de promoção de competências sócioemocionais, "Devagar se vai ao Longe", bem como o de examinar a qualidade da sua implementação em contexto escolar. A realização deste trabalho teve ainda como objetivo ultrapassar algumas das fragilidades comummente associadas à construção, implementação e avaliação de programas desta natureza no panorama nacional e Europeu, em especial a escassez de intervenções baseadas em evidência empírica.

O programa "Devagar se vai ao Longe" é um programa universal de promoção de competências sócioemocionais em contexto escolar, de origem portuguesa (Raimundo, 2007) e sustentado pelo quadro teórico de referência SEL (CASEL, 2003). A avaliação da eficácia do programa foi feita a curto e médio prazo, com um período de *follow-up* superior a seis meses, como recomendado pela CASEL (Durlak et al., 2011) e com avaliações externas de eficácia, na medida em que se utilizaram intervenientes distintos na sua implementação e avaliação. Foi também analisado o papel moderador de algumas caraterísticas das crianças, tais como o nível prévio de competências e problemas, o género e o nível socioeconómico, na eficácia do programa. Uma particularidade deste trabalho foi a implementação de um outro programa não SEL no grupo de controlo, pela mesma psicóloga que implementou o "Devagar se vai ao Longe" no grupo de intervenção, de forma a contrabalançar um eventual efeito placebo, reduzindo a probabilidade dos efeitos se deverem mais às características da implementadora ou ao modo como a mesma interagiu com as crianças do que ao programa, seu referencial teórico e seus objetivos. Que seja do nosso conhecimento, é a primeira vez que esta metodologia é aplicada na implementação de programas SEL.

A validade social do programa, isto é, a sua aceitação junto das crianças e professores foi também analisada. Adicionalmente foi feita uma avaliação da qualidade da implementação, não só das principais dimensões da fidelidade da implementação, como também dos fatores que a promovem e ainda a sua influência no impacto do programa.

Os instrumentos utilizados para avaliar a eficácia do "Devagar se vai ao Longe" foram alvo de estudos prévios na população portuguesa e revelaram qualidades adequadas a boas em termos psicométricos. Recorreu-se a uma metodologia de recolha de dados com múltiplos informantes (crianças, professores e implementadora) e métodos (autorrelato, heterorrelato, avaliação de conhecimentos, notas escolares), procurando-se, com base na literatura, utilizar os instrumentos mais adequados tendo em conta as variáveis a avaliar (ex.: escala de autorrelato para avaliar a ansiedade, heterorrelato para avaliar comportamentos externalizantes, notas escolares para avaliar o desempenho académico).

O programa foi inicialmente elaborado e implementado em quatro grupos-turma, para análise da implementação e aceitação do programa junto dos alunos e para análise da adequação dos conteúdos e materiais e ajustamento do tempo destinado para cada atividade. Após uma reestruturação do programa, e dois meses depois do início desta primeira implementação, realizou-se um estudo prévio de avaliação da eficácia do programa (antes e após a sua implementação) com cinco grupos-turma de intervenção e três de controlo, provenientes de cinco escolas de 1º ciclo de dois agrupamentos de escolas da cidade de Lisboa.

Apesar de alguns resultados promissores obtidos neste estudo prévio, houve necessidade de: (1) reestruturar uma segunda vez o programa e os seus conteúdos/atividades, de modo a adequá-los ainda mais do ponto de vista desenvolvimentista às crianças, assim como ajustar o tempo destinado para algumas atividades; (2) alterar alguns instrumentos

utilizados para avaliar a eficácia do programa, de forma a integrar instrumentos mais robustos do ponto de vista psicométrico, adaptados à população portuguesa e que, simultaneamente, avaliassem o mais fielmente possível, as competências sobre as quais se esperava que o programa tivesse um impacto positivo; (3) aumentar a amostra do estudo, de modo a melhorar a validade externa do mesmo; (4) e estimular uma participação mais envolvida e ativa por parte dos professores relativamente à implementação do programa.

Após os estudos prévios mencionados anteriormente, avançou-se para a realização de um estudo de adaptação de um instrumento de avaliação para a população portuguesa, seguindo-se os estudos de avaliação da eficácia, a curto e médio prazo, e da qualidade da implementação do programa. Os estudos longitudinais que integram o presente trabalho de investigação, e que a seguir sucintamente se apresentam, são de natureza quasi-experimental e decorreram ao longo de dois anos letivos, subsequentes ao ano utilizado para o estudo prévio.

Dada a inexistência de questionários que avaliem a competência social na população escolar portuguesa do 1º ao 12º ano de escolaridade foi necessário, num primeiro estudo, adaptar e validar para a população portuguesa o School Social Behavior Scales – 2 (SSBS-2; Merrell, 2002). O modelo final encontrado na amostra foi replicado numa segunda amostra através de um processo de validação cruzada, com recurso a uma análise fatorial multigrupo. Este primeiro estudo serviu de base à avaliação da competência social realizada nos estudos seguintes.

No segundo estudo, de natureza longitudinal, foi analisado o impacto, a curto prazo, da implementação do programa "Devagar se vai ao longe", em alunos do 4º ano de escolaridade, durante um ano letivo. A pertinência deste estudo fundamentou-se na necessidade de melhor compreender o impacto da implementação de um programa desta natureza, com um referencial teórico sustentado, no contexto português, assim como de

analisar de que forma as características dos alunos poderão moderar o impacto dessa mesma intervenção (CPPRG, 2010; Durlak et al., 2011; Greenberg et al., 2001), após as características do implementador terem sido controladas mediante a aplicação, no grupo de controlo, pelo mesmo implementador, de um programa sem recurso à promoção de competências sócioemocionais (Brown, Jones, LaRusso, & Aber, 2010; Diekstra, 2008; Greenberg et al., 1995). Desta forma, pretendeu-se analisar de que modo a sua implementação se traduziria numa eventual melhoria das competências sócioemocionais, bem como numa redução dos comportamentos externalizantes e internalizantes nos alunos do grupo de intervenção, comparativamente com as do grupo de controlo. Procurou-se ainda examinar que tipo de alunos beneficiaria mais com a implementação do programa, isto é, de que modo os rapazes e raparigas da amostra, com níveis diferenciados de competências sócioemocionais e problemas de comportamento, provenientes de níveis sócioeconómicos distintos seriam afetados de forma diferente pelo programa.

No terceiro estudo, também ele longitudinal, o impacto do programa foi avaliado, mas desta feita a médio prazo quando os mesmos alunos se encontravam no final do 5º ano de escolaridade, tendo sido utilizada uma subamostra proveniente da amostra original. A pertinência deste estudo decorreu da necessidade de analisar de que modo os efeitos obtidos a curto prazo se mantinham, reduziam ou aumentavam a médio prazo (Barlow et al., 2007; Diekstra, 2008; Durlak et al., 2011; Greenberg, 2010; Greenberg et al., 2001), uma vez que os estudos de *follow-up* são escassos, especialmente fora do contexto norte-americano (Diekstra et al., 2008; Durlak et al., 2011), sendo que a maioria dos estudos europeus apenas faz referência, na melhor das hipóteses, a resultados do impacto das intervenções a curto prazo (Weare & Nind, 2011). Os principais objetivos deste estudo foram os de analisar em que medida é que se encontrariam melhorias no conhecimento emocional e uma redução dos

níveis de ansiedade, nos alunos do grupo de intervenção, por comparação com os alunos do grupo de controlo, 10 meses após a conclusão do programa. Pretendeu-se desta forma perceber se estas variáveis, que não sofreram alterações a curto prazo, manifestariam "*sleeper effects*" no médio prazo. Paralelamente procurou-se averiguar se o programa produziria impacto a médio prazo no rendimento académico dos alunos intervencionados, assim como se a implementação do programa moderaria a relação entre o conhecimento emocional e o seu impacto a médio prazo no desempenho académico.

No quarto estudo foi feita uma avaliação de processo relativamente à qualidade de implementação do programa "Devagar se vai ao longe", durante um ano letivo. É conhecido o papel da fidelidade da implementação na eficácia das intervenções destinadas a promover competências sócioemocionais (Durlak et al., 2011; Payton et al., 2000), com os programas a alcançarem melhores resultados em termos do seu impacto quando na presença de uma implementação mais fiel e de maior qualidade (Dane & Schneider, 1998; Domitrovich & Greenberg, 2000; Durlak & DuPre, 2008; Dusenbury et al., 2003). A pertinência do presente estudo acentua-se pelo facto de muitos programas continuarem a ser avaliados apenas relativamente aos resultados em termos do seu impacto, permanecendo por analisar a maioria dos aspetos da implementação, nomeadamente os fatores que contribuem para a promoção ou inibição da fidelidade da implementação (Domitrovich & Greenberg, 2000; Durlak & DuPre, 2008; Sanetti et al., 2011; Webster-Stratton & Herman, 2010) ou ainda o papel da qualidade da implementação na eficácia do programa (Benner, Beaudoin, Chen, Davis, & Ralston, 2010; Bickman et al., 2009; Carroll et al., 2007; Domitrovich & Greenberg, 2000; Durlak & DuPre, 2008; Mihalic et al., 2008; Rimm-Kaufman & Chiu, 2007; Sanetti et al., 2011). O estudo teve como objetivos a análise das dimensões da fidelidade da implementação, a identificação dos fatores promotores e/ou inibidores da qualidade da implementação e, por fim, a apreciação

das associações entre a fidelidade da implementação e os resultados de eficácia do programa. Pretendeu-se analisar até que ponto o programa teria sido implementado tal como planeado, cobrindo a maioria da informação e das atividades previstas para cada sessão, se todas as sessões teriam sido implementadas e se teria sido alcançado um elevado grau de envolvimento e compromisso para com as atividades do programa, por parte dos alunos. Procurou-se igualmente analisar de que modo alguns fatores, tais como o comportamento dos alunos, o apoio e compromisso dos professores e a satisfação dos alunos, contribuiriam para uma melhoria da qualidade da implementação. Neste estudo foram analisadas associações entre a variabilidade nos índices que avaliam a fidelidade da implementação (adesão e envolvimento dos alunos) e diferenças nos resultados de eficácia do programa a nível das competências sócioemocionais e dos problemas de comportamento externalizante e internalizante, a curto prazo.

Os estudos que fazem parte do presente trabalho de investigação, assim como as suas interligações, encontram-se representados no mapa conceptual da Figura 1.

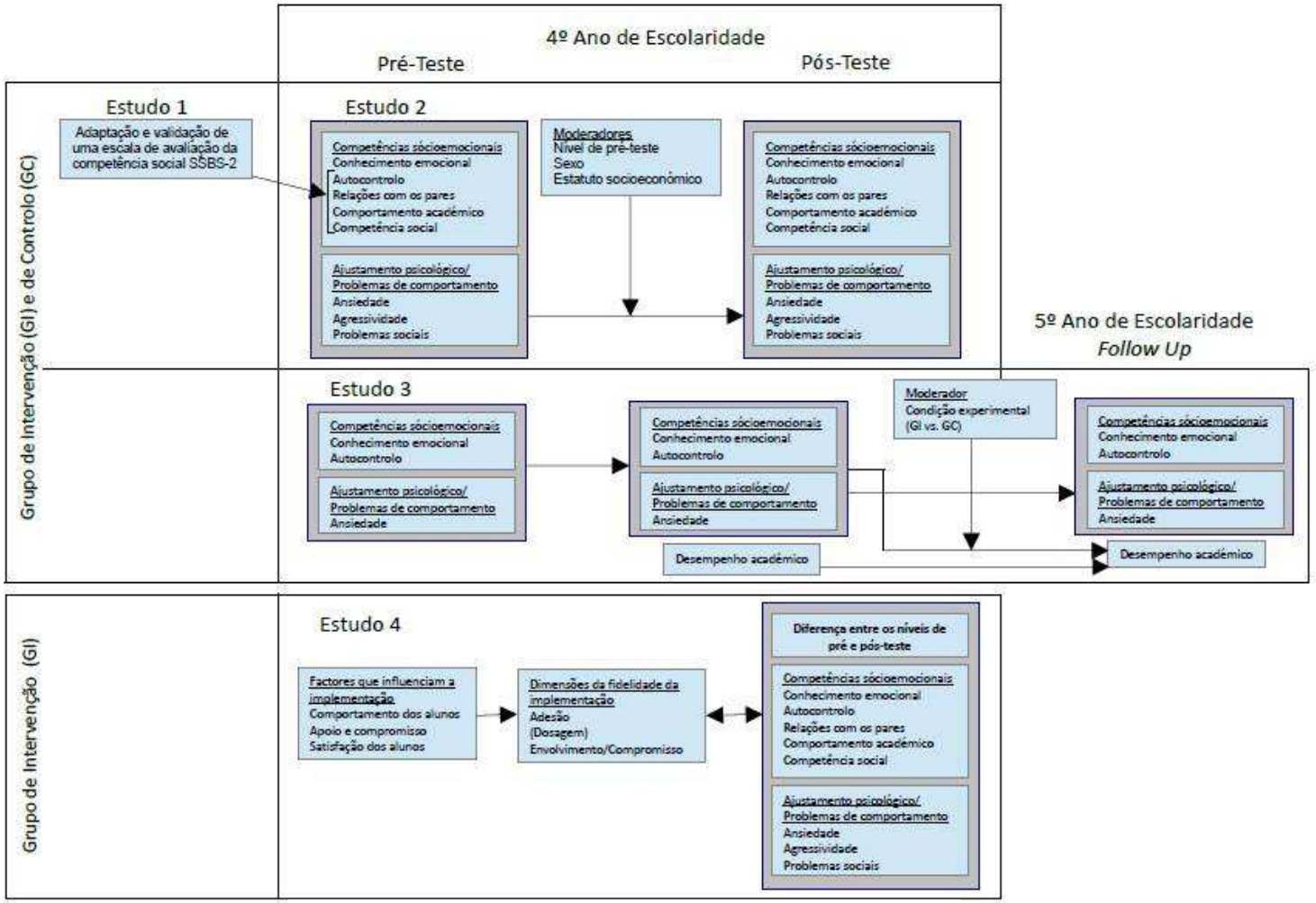

Figura 1. Mapa concetual integrador dos estudos

CAPITULO II

Estudos Empíricos

School Social Behavior Scales: an Adaptation Study of the Portuguese Version of the Social Competence Scale from SSBS-2[1]

Abstract

This study analyses the psychometric proprieties of a Portuguese version of the social competence scale from the School Social Behavior Scales (SSBS-2, Merrell, 2002). It is a rating instrument of children and adolescents behavior, to be used by teachers and other school personnel. This scale includes 3 subscales: self-management/compliance, peer relations and academic behavior. In our first sample, 175 teachers rated 344 students from grade 1 through 12. On the second sample 13 teachers rated 251 3rd and 4th grades students. The results from the Portuguese adaptation support the multidimensional structure of the social competence scale from the SSBS-2, although an alternative model demonstrated a better fit to the data than the model originally proposed by the author. The scale showed good internal consistency and good intercorrelations between subscales, as well as between subscales and the total scale. The final model was well replicated in the second sample. These results encourage us to pursue the SSBS-2 Portuguese adaptation, in order to provide a useful and validated instrument for the assessment of social competence and for educational interventions.

Key words

Social Competence; Assessment; Validation; School Social Behavior Scales

[1] Raimundo, R., Carapito, E., Pereira, A. I., Marques-Pinto, A., Lima, L & Ribeiro, T. (2012). School social behavior scales (SSBS2): An adaptation study of the portuguese version of the social competence scale. Spanish Journal of Psychology, 15, 1473-1484. doi: 10.5209/rev_SJOP.2012.v15.n3.39431

Introduction

Social competence plays a key role in the adaptive school functioning of children and adolescents, influencing relations with teachers, peer acceptance, and academic achievement (Lemos & Meneses, 2002). Social competence and social skills also have a great impact on human development, particularly in the success and adjustment in adulthood (Merrell, 1993b, 2002).

Despite the increasing focus of research and intervention on the pro-social behavior, current models of social behavior still concentrate too much on the pathological and non-normative development of youth, making it difficult to assess social behavior in a manner that is reliable, efficient and generalizable (Crowley & Merrell, 2003; Cummings, Kaminski, & Merrell, 2008). However, the existence of social skills assessment instruments that are practical, low cost, easy to implement, and have good psychometric properties is a prerequisite to the development of effective interventions targeting social behavior (Merrell, 2001, 2002).

Social Competence

Social competence is a complex, multidimensional, interactive construct (Merrell, 2002) that encompasses social, attitudinal, cognitive and emotional factors (Consortium on the School-Based Promotion of Social Competence, 1996; Lemos & Meneses, 2002). Different definitions of this construct can be found in literature, depending on the theoretical perspectives adopted about social functioning and development (Lemos & Meneses, 2002). Defining social competence became even more complicated when some authors started to

include in the definition both the skills and the outcomes of individual actions appropriate to a specific situation (Consortium on School-Based Promotion of Social Competence, 1996).

The majority of social skills definitions emphasize social validity (Caldarella & Merrell, 1997), influencing the construction of assessment tools that measure these skills, such as the ones developed by Gresham and Elliott (1990) and Merrell (2002). This definition privileges the subject's behavior in specific situations that predict and/or are related to positive social outcomes, such as peer acceptance, popularity and the judgment of behavior by significant others (Gresham & Elliott, 1984).

Socially competent individuals are those who have the skills necessary to solve problems in such a way that allows them to choose and activate appropriate social behaviors (Bierman & Welsh, 1997; as cited in Cummings et al., 2008), which can be learned (Lemos & Meneses, 2002). Caldarella and Merrell (1997) developed a taxonomy of social skills of children and adolescents based on published empirical studies, manuals and assessment tools. Eighteen of the 19 studies analyzed mention at least one of the five dimensions put forth by the authors as core social skills: (1) peer relations, (2) self-management, (3) academic, (4) compliance and (5) assertion. Although all social skills are, to some degree, interdependent, they can be grouped into distinct categories (Caldarella & Merrell, 1997).

Social competence: antecedents and impact on adjustment.

Children's early life experiences contribute to the development of a competent social functioning towards adults and peers in their socio-cultural context (Feldman & Masalha, 2010). Parental modeling of emotional expression, the way parents manage children's emotions (Denham, Mitchell-Copeland, Stranberg, Auerbach, & Blair, 1997), family cohesion (Feldman & Masalha, 2010), parental psychopathology, family stress and other childhood

adversities (DeMulder, Denham, Schmidt, & Mitchell, 2000) are important predictors of social competence (Denham et al., 1997; Feldman & Masalha, 2010).

The children of emotionally positive parents (Denham et al., 1997), children with a secure attachment to the mother and children with low family stress (DeMulder et al., 2000) show greater social competence and fewer behavioral problems (DeMulder et al., 2000; Schmidt, DeMulder, & Denham, 2002). In contrast, poverty, low socio-economic status, residing in high-crime neighborhoods and parental conflict or divorce are significant ecological predictors of behavioral problems in children and adolescents, indirectly influencing the relationship between parents and children and affecting children's exposure to peer groups with deviant behavior (Granic & Patterson, 2006).

But it is also possible to promote social competence in children and adolescents via universal or selective intervention programs implemented inside or outside the school. The effectiveness of these programs is supported by several studies (Catalano, Berglung, Ryan, Lonczak, & Hawkins, 2002; Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Durlak, Weissberg, & Pachan, 2010; Greenberg, Domitrovich, & Bumbarger, 2001).

Developing adjusted social competences leads to positive and effective interactions with others (Consortium on the School-Based Promotion of Social Competence, 1996; Gresham & Elliott, 1990; Lemos & Meneses, 2002), academic success (Gresham & Elliott, 1990) and buffers against relationships that promote socially unacceptable behaviors (Lemos & Meneses, 2002). Furthermore, social deficits in childhood can lead, in the short and long-term, to academic difficulties and poor school adjustment, school dropout, rejection by peers (Cummings et al., 2008; Merrell, 1993b, 2002), depression and anxiety, juvenile delinquency, mental health problems, development of antisocial behavior patterns (Cummings et al., 2008; Merrell, 1993b, 2002; Walker, Colvin, & Ramsey, 1995, as cited in Caldarella & Merrell,

1997), unemployment, underemployment, inadequate social support and unsatisfactory interpersonal and family relationships (Merrell, 1993b, 2002). All these negative consequences carry a high cost to the individuals, their families and the society (Merrell, 2002).

Social Skills Evaluation

Merrell (2001) identifies six primary methods of assessing the social skills of children and adolescents: behavior rating scales, behavioral observation, interviewing, self-report instruments, projective-expressive techniques, and sociometric techniques.

The behavior rating scales provide a standardized format for making judgments about the characteristics of social behavior in children and adolescents. These scales are focused on estimates based on daily observations of youth while they are in their natural environment (e.g., school, home) over a period of time, by people who know the youth well (e.g., parents and teachers). These scales have advantages over other methods of evaluation. Compared to interviews and observations, behavior rating scales are less expensive, less time consuming and require less training for application. Unlike behavioral observation, they permit the evaluation of low frequency but very relevant behaviors. Finally, they have advantages over self-report scales because they can be used to assess children who cannot readily provide information about themselves. In short, behavior rating scales are a valuable and cost-effective method of screening and assessing the socio-emotional behavior of children and youth (Crowley & Merrell, 2003; Merrell, 2001).

However, rating scales only measure behavioral competence in a specific point in time and are less sensitive to changes in behavior or learning (Cummings et al., 2008), rending

them difficult to use for characterizing young people's trajectories of growth and development.

Rating scales based on teachers' reports are one of the most widely used methods of assessing social behavior in young people (Caldarella & Merrell, 1997; Merrell, 1993b), especially social skills (Cummings et al., 2008). Their main strength resides in their being based on large samples of observed behavior, during extended periods of time (Lemos & Meneses, 2002).

The School Social Behavior Scales — SSBS-2

The SSBS-2 is an improved version of the original instrument published in 1993 (SSBS; Merrell, 1993a) developed specifically for screening and assessing social competence and antisocial behavior of students from 1st to 12th grade. It was designed to facilitate the development of appropriate prevention and intervention programs and for evaluating the effectiveness of interventions. The SSBS-2 includes two behavior rating scales for teachers and other school-based raters: the Social Competence Scale and the Antisocial Behavior Scale. The SSBS-2 Social Competence Scale describes adaptive or positive behaviors that are likely to lead to positive personal and social outcomes for students. The SSBS-2 Antisocial Behavior Scale describes common social-related behavioral problems of children and youth (Merrell, 2002).

Several studies concerning the instrument's psychometric properties, reported in SSBS-2 manual and subsequent publications, have demonstrated a satisfactory internal consistency, test-retest reliability at 3-week intervals and interrater reliability. Validity of the scales has been demonstrated in several ways, including convergent and discriminant validity with other behavior rating scales, evidence of strong sensitivity to theoretically-based group

differences (e.g., special education, gifted students, at-risk children) and intervention programs evaluation, as well as convergence with other types of assessment such as sociometric procedures, self-report instruments and behavioral observations (Cummings et al., 2008; Merrell, 2001, 2002).

Crowley and Merrell (2003) analyzed the original scale factor structure through confirmatory factor analysis. Item packets, testlets or mini-scales of three or four items were used for each subscale, in a total of ten. The final model fit indices showed acceptable values, thus supporting the scale use for the assessment of social competence.

The SSBS-2 instrument was translated into several languages and has been object of research in several countries (K. Merrell, personal communication, 26th September, 2010). In the literature there is only reference to a Turkish version of SSBS with children from the 1st and 2nd grades (Yukay-Yuksel, 2009). The author concluded that the Turkish version of the SSBS was appropriate for evaluating the student's level of social competence in the 1st and 2nd grades (elementary school), since it had acceptable validity and reliability. Confirmatory factor analysis of the original structure of the instrument revealed weaknesses, however, the author still chose to keep it.

There are other technically appropriate rating scales with good psychometric qualities that have proven useful to assess children's and adolescents' social behavior (Merrell, 2002), such as the Walker-McConnell Scale of Social Competence and School Adjustment – SSCSA (1988, as cited in Merrell, 1993b), the Social Skills Rating System – SSRS by Gresham and Elliott (1990), and the Social Skills Improvement System – Rating Scales – SSIS, by Gresham and Elliott (2008), which is a more recent and improved version of SSRS. However the SSBS have unique advantages for assessing the wider social behavior because they include items related to social competence and antisocial behavior assessment in a similar proportion

(Merrell, 1993b). As for the SSCSA, it does not include an assessment of behavioral problems and the SSIS and SSRS were built with a special focus on positive social behaviors although they allow for a brief assessment of behavioral problems (Merrell, 1993b).

In Portugal, the assessment of social competence has received increasing attention in the last decade, but the publication of studies related to the development and/or adaptation of Portuguese assessment tools continues to fall short. Social competence rating scale adaptation studies using confirmatory factor analysis methodology are unheard of in our country, despite it being considered the most appropriate methodology when a specific structure was already found for a given assessment tool and the researchers wish to analyze that structure with different samples (Crowley & Merrell, 2003). So far we only have two published adaptations, both of the Social Skills Rating System – SSRS (Gresham & Elliott, 1990), with acceptable results in the validation studies (reliability and validity): the teachers version (hetero-report) for elementary and middle school (1st to 6th grade) by Lemos and Meneses (2002), with participants from the 3rd and 6th grades; and the students version (self-report) for middle and high school students (7th to 12th grade) by Pedro and Albuquerque (2007), with students from the 7th, 8th and 9th grades. It is also worth mentioning the adaptation and validation studies of a social skills and behavior problems assessment tool for Portuguese preschoolers, the Preschool and Kindergarten Behavior Scales – 2 (PKBS-2, Merrell, 2002), which are still ongoing but have confirmed the good psychometric properties of the PKBS-2 (teachers' and parents' versions) in a sample of children from three to six-year-olds (Major, 2007; Major & Seabra-Santos, 2009).

Gomes (2008) conducted a research to examine whether the Social Competence Scale of the Portuguese version of the SSBS-2 would be an effective tool to differentiate children considered at risk from children who are not considered at risk in a matched sample in terms

of gender and age. The results showed that the children from the first group had significantly lower levels of social competence than children from the second group. In both groups, girls had higher levels of social competence than boys. The results also showed the instrument effectiveness in classifying children within each group, based on the teachers' responses.

The Present Study

Taking into account the limited amount of research of this nature in Portugal, and the need to make available for research and intervention an assessment tool adapted to the Portuguese school population from the 1st to the 12th grades, this study aims to present the first steps of the School Social Behavior Scales – 2 (SSBS-2; Merrell, 2002) adaptation and validation. The present research focuses only on the Social Competence scale evaluation, since the Antisocial Behavior Scale of SSBS-2 research evaluation will be mentioned in a future publication.

Method

Participants

Two samples (sample one and sample two) were gathered for this study. The first sample was used to study the sensitivity, validity and reliability of the Social Competence scale while the second sample was used for cross-validation of the same scale. Participants in both samples differ in many respects. The sample 1 consists of 175 teachers, mostly female (81.1%), from public (74.3%), private (12.6%) and nonprofit private schools (13.1%) of seven districts of mainland Portugal. Teachers completed a total of 344 scales, one per student, 187 male and 157 female, aged six to 18 (M = 12.13, SD = 3.37). Students attended 1st to 12th

grades[2]. Sample 2 was comprised of 13 teachers, mostly female (92.3%), from six public schools from the Lisbon district. These teachers completed a total of 251 scales, one per student, 133 male students and 118 female students, aged eight to 14 (*M* = 9:32, *SD* = .78). Students attended the 3rd (3.2%) or the 4th (96.8%) grades.

Measure

Items of the SSBS-2 Social Competence Scale were first translated from English to Portuguese by two researchers with a psychology degree and proficient in English, after obtaining authorization, for the Portuguese adaptation, from the author of the scale. A professional translator made the retroversion of both Portuguese translations into English and the items more faithfully translated from the original version were selected. The 32 items that make up the scale assess the frequency of students' positive social behaviors likely to occur in the school context, from the 1st to the 12th grades. Behaviors are assessed using a Likert response scale from 1 (*never*) to 5 (*very often*).

The Social Competence Scale is organized into three empirically derived subscales: *Peer Relations* (14 items), *Self-Management* (10 items) and *Academic Behavior* (eight items). The *Peer Relations* subscale refers to items that measure social skills or characteristics that are important in establishing positive relationships with and gaining social acceptance from peers (e.g., "Offers help to other students when needed", "Invites other students to participate in activities"). The *Self-Management* subscale includes items which measure social skills

[2] Despite the apparent age differences in the development of social competence (Conger & Keane, 1981; Eisenberg & Harris, 1984) and the difficulty in finding assessment tools with good psychometric qualities that evaluate the same theoretical constructs throughout different developmental stages (Denham, Wyatt, Bassett, Echeverria, & Knox, 2009), the option for a sample with such a vast range of ages was due to the fact that literature seems to point to the inexistence of significant age differences regarding social competence. In the analysis made by Caldarella and Merrell (1997), none of the 19 published studies about social abilities found significant differences between older and younger children and the majority of these studies identified similar factors or dimensions throughout age. Moreover, in Merrell's (2002) study with the original sample of the SSBS-2, the effect size of the differences on social competence between the 1st to the 6th grades group and the 7th to the 12th grades group, was close to 0 (.02).

related to self-restraint, cooperation, and compliance with the demands of school rules and expectations (e.g., "Remains calm when problems arise", "Responds appropriately when corrected by teachers"). The *Academic Behavior* subscale consists of items related to competent performance and engagement on academic tasks (e.g., "Completes school work without being reminded", "Produces work of acceptable quality for his/her ability level").

In its original version this scale demonstrated good psychometric properties, showing a strong internal consistency (.91 to .98), good accuracy in a test-retest interval of three weeks (.76 to .83) and good inter-rater agreement (.72 to .83). In confirmatory factor analysis of the original scale indices of adjustment of the final model revealed acceptable values ($X^2(29) = 389.55$, $p < .001$, $X^2/df = 14.433$; *CFI* = .97; *GFI* = .93; *RMSEA* = .11) (Crowley & Merrell, 2003).

Procedure

Samples were obtained from different methodological choices, since they were selected for two separate studies using the Social Competence Scale of SSBS-2, with different purposes. Thus, for the collection of data from sample 1 (n = 344) each teacher received two copies of the scale to complete, regarding two students: the 5th and the 10th from the list of students in their class, which was ordered alphabetically. This was done to prevent biased choices (either for positive or negative reasons) regarding the students the teachers were going to evaluate. Each teacher was asked to complete the scales and to give them back to the investigator in a sealed envelope. Sample 2 (n = 251) was obtained by having teachers evaluate all the students in their class. This sample was also used to assess the impact of a socio-emotional learning program implemented in the 4th grade. In this study, sample 2 was only used as a cross-validation sample of the final model.

Statistical Analysis

The database of the present study was built using the SPSS program (version 17.0) that had also been used to analyze the sensitivity and reliability of the Social Competence Scale of the SSBS-2. The study of the factorial validity of the scale, as well as the cross-validation to test the invariance of the model, was conducted using the AMOS software (version 7.0). The sensitivity of the items was assessed by the coefficients of skewness and kurtosis. It was considered that skewness coefficient values above three and kurtosis coefficient values below seven represented significant deviation from normality (Kline, 1998).

In the confirmatory factor analysis (CFA), the same procedure Crowley and Merrell (2003) used for the original scale was followed. A combination of items (testlets), between two and four, was used, creating mini-scales (three to four sets of items per subscale). The use of mini-scales, suggested by Collins and Gleaves (1998), was adopted as a way to overcome the reduced reliability associated with the items when considered individually in a CFA (Floyd & Widaman, 1995).

Next, the factorial validity of the tri-factorial measurement model was tested. First, it was adopted a strictly confirmatory approach to test the adequacy of the data to the model. Second, there was an attempt to improve the model and, finally, a factorial invariance analysis was conducted using a multigroup confirmatory factor analysis. The following indices of goodness-of-fit were used: the chi-square (X^2), the chi-square and degrees of freedom ratio (X^2/df), the comparative fit index (*CFI*), the goodness-of-fit index (*GFI*) and the root mean square error of approximation (*RMSEA*).

The quality of alternative models was also assessed in comparative terms, using the ΔX^2 and the ΔCFI [3]. For the purpose of comparing alternative models it was considered that the model with lower value of X^2 is what has better quality of adjustment. The refinement of the model was based on modification indices calculated by AMOS, pursued only if they were adequate from the statistical and substantive points of view (Byrne, 2010). Trajectories were changed and/or items were eliminated in the presence of modification indices above 11 [X^2 (1) = 10.86, p = .001] (Maroco, 2010).

The reliability was assessed with Cronbach's alpha for each of the three factors and for the total scale. The Pearson correlation coefficient between mini-scales and subscales and between subscales and total scale was also used to analyze the internal consistency. The robustness of the final model was further analyzed with the AMOS program by using a cross-validation with a multigroup confirmatory factor analysis, which included two independent samples (sample 1 and sample 2). This analysis permitted a test of the factorial invariance (measurement and structural model), i.e., the extent to which the mini-scales of the Scale of Social Competence of the SSBS-2 operate in a similar manner in both samples and whether the factorial structure remains the same (Byrne, 2010). To test the invariance of the model it was used the ΔX^2 and the ΔCFI, i.e., the difference in X^2 and in CFI between the configural model and the measurement and structural models, respectively.

Finally, an analysis of variance (oneway ANOVA) of the means and standard deviations was made for the total scale and subscales in terms of socio-demographic variables.

[3] It was considered that *CFI* and *GFI* values above 0.95, *RMSEA* values below .06 (Hu & Bentler, 1999) and X^2/df values equal to or below 3 (Segars & Grover, 1993) were good model fits. *RMSEA* values between .06 and .08 were considered acceptable, between .08 and .10 tolerable, and unacceptable when they were above .10 (Browne & Cudeck, 1992).

Results

Sensitivity, Validity and Reliability of the Social Competence Scale of SSBS-2

Table 1 presents the descriptive statistics, for sample 1, of the 10 mini-scales that constitute the Social Competence Scale of the SSBS-2: the average (*M*), the standard deviation (*SD*), the skeweness *(Sk*) and the kurtosis (*Ku*). All of them have symmetry and pointyness values very close to the normal distribution. The values obtained in all these indicators are adequate and do not recommend the removal of any of the mini-scales from the scale.

Table 1

Sensibility of Item Packets of the Social Competence Scale of the SSBS -2

Item Packets	*M*	*SD*	*Skewness*	*Kurtosis*	*Minimum*	*Maximum*
Peers1	10.19	2.50	-.222	-.350	3	15
Peers2	10.16	2.47	-.314	-.258	3	15
Peers3	13.54	3.42	-.164	-.572	5	20
Peers4	13.82	2.99	-.176	-.413	5	20
Self1	10.94	2.25	-.382	-.093	4	15
Self2	10.65	2.70	-.365	-.282	3	15
Self3	11.32	2.43	-.506	-.327	3	15
Acad1	10.55	3.04	-.206	-.806	3	15
Acad2	11.32	2.55	-.317	-.518	3	15
Acad3	7.02	1.89	-.192	-.653	2	10

Note. Peers1 = Peer Relations 1; Peers2 = Peer Relations 2; Peers3 = Peer Relations 3; Peers4 = Peer Relations 4; Self1 = Self-Control 1; Self2 = Self-Control 2; Self3 = Self-Control 3; Acad1 = Academic Behavior 1; Acad2 = Academic Behavior 2; Acad3 = Academic Behavior 3.

Factorial validity was tested through a confirmatory factor analysis of the final model proposed by Crowley and Merrell (2003).

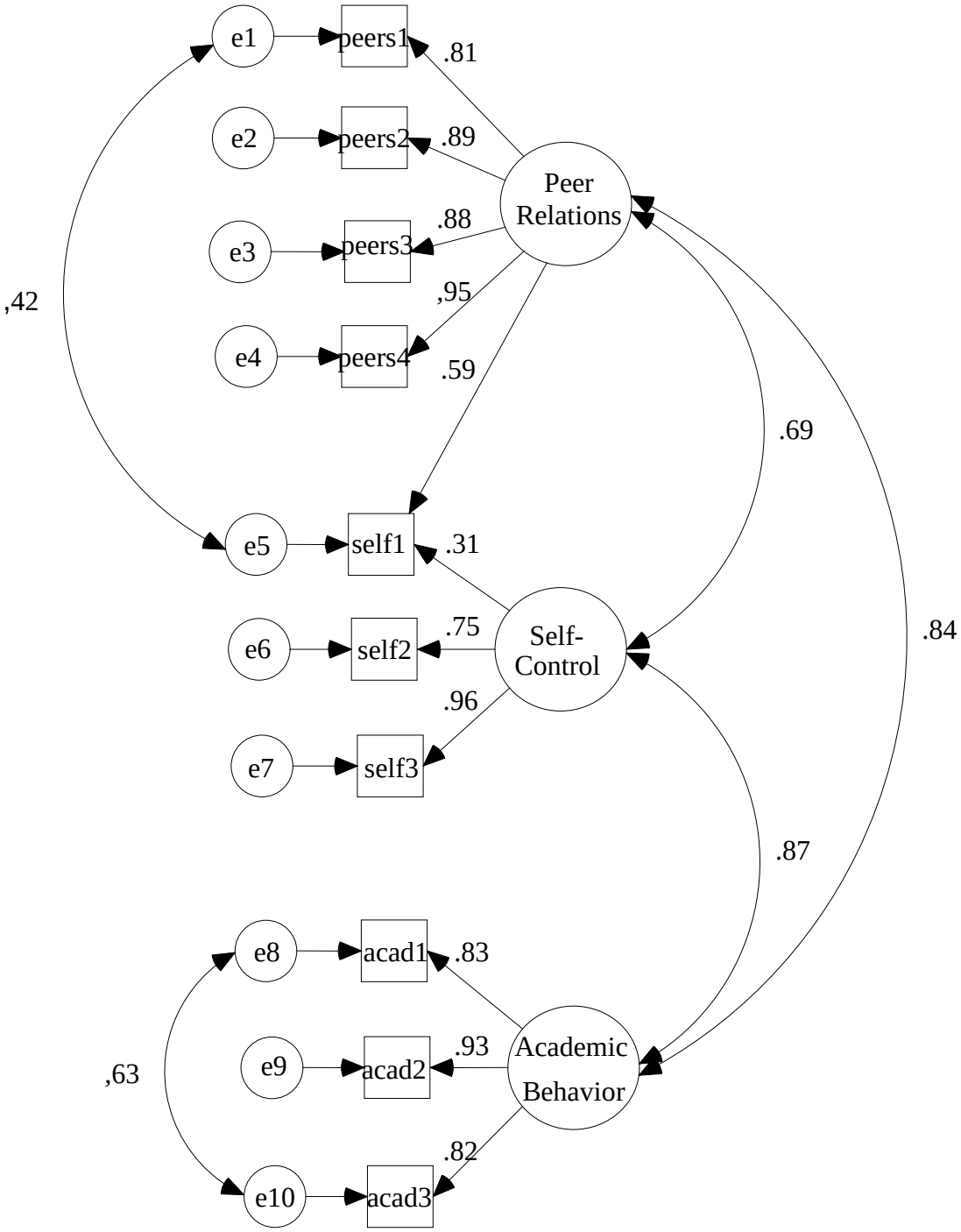

Figure 2. Final model for Social Competence Scale proposed by Crowley and Merrell (2003).

Some of the goodness-of-fit indices show that the factorial validity of the original structure of the scale in sample 1 ranges from tolerable (X^2/df) to unacceptable (*RMSEA*) [$X^2(29) = 139.753$, $p < .001$, $X^2/df = 4.819$; *CFI* = .969; *GFI* = .923; *RMSEA* = .106] (see Figure 1), although some indices (*CFI* and *GFI*) present acceptable values of adjustment and the factorial loadings of all mini-scales except one are higher than .59. Based on these goodness-of-fit scores, some changes in the model were introduced following the modification indices provided by AMOS. For this reason, mini-scale Peers3 was eliminated from the Peer Relations dimension, as the modification indices suggested a correlation of its measurement error with several measurement errors from other mini-scales in the same or in other dimensions. The goodness-of-fit values for this first modified model [$X^2(21) = 51.706$, $p < .001$, $X^2/df = 2.462$; *CFI* = .990; *GFI* = .969; *RMSEA* = .065] show a substantial improvement [$\Delta X^2(8) = 88.047$, $p < .01$], although the factorial loadings of Peers1 mini-scale, which load both on Peer Relations (.59) and on Self-Management (.30) subscales, are bellow the other factorial loadings. All the remaining values are equal or higher than .75. Self1 is a mini-scale that is associated with self-management in social interactions, and for this reason it is also expected to load on the subscale Peer Relations. This led to its elimination and, as a result, the correlation between measurement errors of Peers1 and Self1 disappeared.

In line with the options made by the author of the original scale (Crowley & Merrell, 2003), and considering that the measurement errors are often the result of the perceived redundancy in the content of the items (Byrne, 2010), the correlation between the measurement errors of mini-scales Acad1 and Acad3 was allowed. This association is justified as both mini-scales include items related to classroom tasks. The goodness-of-fit values of this new model are good [$X^2(16) = 31.034$, $p = .013$, $X^2/df = 1.940$; *CFI* = .994; *GFI* = .978; *RMSEA* = .052] and significantly better than those of the first modified model [$\Delta X^2(5)$

= 20.672, $p < .01$], attesting the high factorial validity of the final modified Social Competence Scale of the SSBS-2 (see Figure 2).

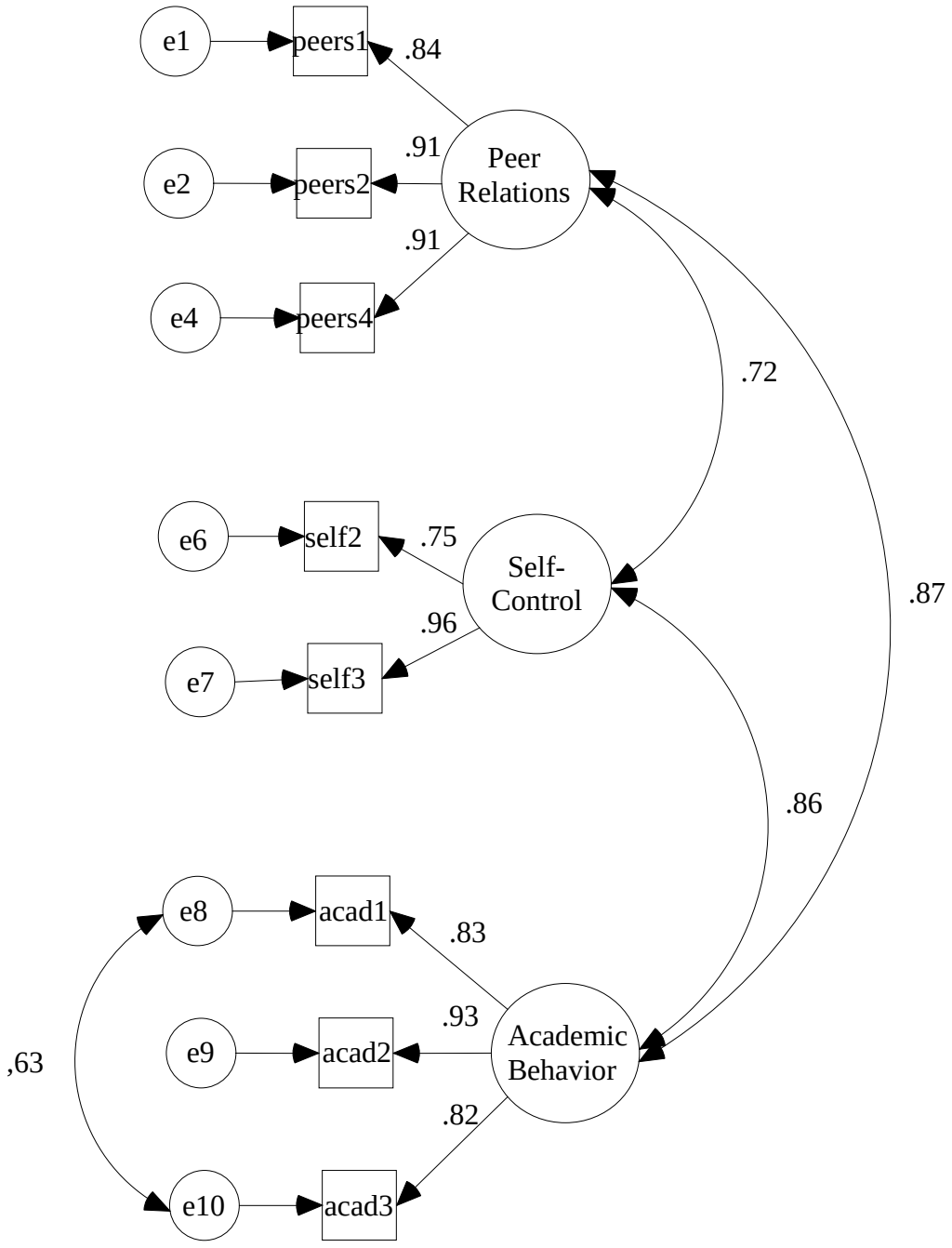

Figure 3. Modified final model for Social Competence Scale of the SSBS-2.

In the final modified model, for sample 1, the Cronbach alpha values for the factors Peer Relations (three mini-scales), Self-Management (two mini-scales) and Academic Behavior (three mini-scales) were .91, .83 and .91, respectively. The Cronbach alpha for the total scale is .94. The correlations between each mini-scale and the respective subscales range between .90 and .96; the correlations of each mini-scale and the total score of the scale are between .71 and .90.

Cross-Validation of the Social Competence Scale of the SSBS-2

A second independent sample was collected (sample 2) and used in this study as a cross-validation sample for the final modified model. The goodness-of-fit values of this last model regarding sample 2 are less adequate [$X^2(16) = 56.211$, $p < .001$, $X^2/df = 3.513$; $CFI = .983$; $GFI = .949$; $RMSEA = .100$], but they are still quite acceptable. In this sample the reliability of the factors Peer Relations (three mini-scales), Self- Management (two mini-scales) and Academic Behavior (three mini-scales), given by the Cronbach alpha, is .94, .87 and .91, respectively, and .96 for the total scale.

Table 2

Goodness-of-Fit of Multigroup Confirmatory Factor Analysis

Model	X^2	*df*	*p*	ΔX^2	Δdf	*p*	*CFI*	ΔCFI
Configural	87.245	32	.000	____	__	___	.989	____
Measurement	96.306	37	.000	9.060	5	NS	.989	.000
Structural	118.077	43	.000	30.832	11	.001	.985	.004

The data on table 2 reveal the invariance of the model regarding the factor loadings of the mini-scales on the factors ($\Delta X^2(5) = 9.060$, $p = .107$; $\Delta CFI < .001$), i.e., measurement invariance. However, the results relative to the structural invariance revealed by ΔX^2 and ΔCFI are contradictory. The invariance is confirmed if ΔCFI is considered ($\Delta CFI = .004 < .01$), but not if ΔX^2 is taken into account ($\Delta X^2(11) = 30.832$, $p < .01$). Cheung and Rensvold (2002) recommend the use of ΔCFI (< .01) instead of ΔX^2(> .05), because the first measure is independent of the complexity of the model and of sample size.

This cross-validation with two samples to test the invariance of the proposed model has shown both structural and measurement invariance for the Social Competence Scale of the SSBS-2. The final modified model presents a good fit to the data and an adequate approximation to both samples.

Table 3

Mean Values (M) and Standard Deviation (SD) of the Social Competence Scale and Subscales regarding Gender, Age and Educational Level

Socio-demographic Variables		Social Competence *M (SD)*	Peer Relations *M (SD)*	Self - Control *M (SD)*	Academic Behavior *M (SD)*
Gender	Female (*n*=157)	10.93 (1.93)	11.57 (2.32)	11.53 (2.03)	9.88 (2.14)
	Male (*n*=187)	10.38 (2.31)	11.24 (2.56)	10.53 (2.55)	9.42 (2.47)
Age	6-9 (*n*=87)	11.10 (2.11)	11.96 (2.41)	11.30 (2.27)	10.10 (2.40)
	10-12 (*n*=110)	10.50 (2.17)	11.18 (2.36)	10.76 (2.49)	9.64 (2.33)
	13-15 (*n*=75)	10.40 (2.31)	11.10 (2.76)	10.89 (2.47)	9.36 (2.44)
	16-18 (*n*=72)	10.51 (2.00)	11.34 (2.27)	11.06 (2.23)	9.32 (2.09)
Educa-	Elementary (*n*=104)	11.04 (2.13)	11.89 (2.38)	11.17 (2.38)	10.11 (2.39)
tional	Early Middle (*n*=82)	10.32 (2.26)	11.03 (2.62)	10.73 (2.50)	9.33 (2.37)
Level	Late Middle (*n*=91)	10.42 (2.11)	11.10 (2.44)	10.87 (2.29)	9.44 (2.29)
	High (*n*=67)	10.66 (2.09)	11.47 (2.31)	11.18 (2.35)	9.51 (2.19)

Note. Elementary = Elementary School; Early Middle = Early Middle School; Late Middle = Late Middle School; High = High School.

Table 3 presents the means and standards deviations obtained for the total scale and the subscales in sample 1, considering the socio-demographic variables. Oneway ANOVA

tests revealed significant gender differences, with girls presenting significantly higher levels of social competence ($F(1, 342) = 5.569$, $p = .02$, $\eta_p^2 = .02$) and self-management ($F(1, 342) = 15.752$, $p < .01$, $\eta_p^2 = .04$) than boys, although the effect size is small. Age groups did not produce any significant difference in these means and there was only one marginally significant educational level effect: students from elementary school tend to present more positive levels of peer relations when compared with students from other educational levels ($F(3, 340) = 2.521$, $p < .06$, $\eta_p^2 = .02$).

Discussion

This study proposed to analyze the psychometric characteristics of the Portuguese version of the Social Competence Scale of the SSBS-2. Two samples with188 teachers from public schools, private for-profit schools and private nonprofit schools, from seven different districts of Portugal, evaluated a total of 595 students, aged six to 18, from 1st to 12th grades. The study aimed to offer an adaptation of a valid assessment measure of social competence, whether for research or intervention purposes in this area, both in clinical and educational contexts.

The study of the sensitivity of the mini-scales of the SSBS-2 Scale of Social Competence shows an adequate distribution of results, differentiating the participants based on their social competence. As for the factorial validity, the results of this study support the multidimensional structure of social competence held by the author of the original scale (Crowley & Merrell, 2003; Merrell, 2002), although the final structure has not been exactly replicated. The factorial structure found in the Portuguese sample presents more appropriate

goodness-of-fit values than the original structure of the scale proposed by the authors, although it was necessary to remove items from the scale.

Regarding reliability, the results show internal consistency indices for the mini-scales and the total scale ranging from good to very good, similar to results reported by Gomes (2008) in another Portuguese study using the Social Competence Scale of the SSBS-2. The relationships found between the subscales of the Social Competence Scale are very similar to those found by the author of the original scale (Crowley & Merrell, 2003), suggesting a strong relationship between the constructs represented by each subscale (Merrell, 2002), particularly between the academic behavior subscale and the remaining subscales. According to DiPerna (2006) the academic competence encompasses not only academic skills, i.e., the basic and complex cognitive abilities (e.g., math, reading, critical thinking) that constitute the main target of academic instruction, but also the academic facilitators, i.e., the attitudes and behaviors that facilitate students' participation in academic instruction (e.g., interpersonal skills, study skills, motivation and commitment). In this sense, it is not surprising to find that some skills necessary for a positive interaction between peers during childhood and adolescence are also essential to succeed in school (Caldarella & Merrell, 1997). Peer relations can serve as facilitators in that they promote new learning contexts and motivate students to commit themselves to learning activities and to socially appropriate behaviors (Wentzel & Watkins, 2002).

Regarding the model's test of invariance, the fact that the structural invariance has been confirmed by only one indicator (ΔCFI) is justifiable because a different methodology for collecting data for sample 2 was adopted.

Gender differences found in the first sample — girls showing higher mean values on social competence than boys — support the data obtained by the author of the scale (Merrell,

2002), as well as those referred by Gomes (2008). The absence of significant differences according to educational level corroborates the results obtained by Merrell (2002) with the North American sample.

Considering the results as a whole, it may be concluded that the scale presents good psychometric properties, both in terms of its validity and reliability and of its level of invariance of measurement and structure in two different samples, which validates the relevance of the Social Competence Scale of the SSBS-2 as an evaluation tool for children and youth.

The SSBS-2 scales offer some unique advantages. They focus specifically on social functioning (Crowley & Merrell, 2003; Merrell, 2002) and include social skills and anti-social behavior problems that are typical, general and common, and not psychopathological symptoms or psychiatric disorders. They are easy to apply and to quote and they are brief (Merrell, 2001, 2002), but comprehensive enough to afford a detailed screening of social and anti-social behavior. Furthermore, the SSBS-2 are written in an accessible language for evaluators (teachers) (Merrell, 2002) and, together with the Home and Community Social Behavior Scales (HCSBS-2, Caldarella & Merrell, 2002) —, completed by parents or by other elements of the community — make up a battery of instruments designed to assess the social and antisocial behavior in a variety of contexts and by different informants (Merrell, 2001, 2002).

Limitations and Future Studies

Despite these promising results, it should be noted that the samples collected in this study were convenience samples and, as such, are not necessarily representative of the

Portuguese population. In addition, each teacher rated several children, not just one, otherwise the sample size would be insufficient for the analysis carried out.

Further research is recommended, particularly regarding the analysis of the scale's validity (e.g., criterion validity, convergent and discriminant validity) and reliability based on other indicators (e.g., test-retest method), to continue to demonstrate the relevance and appropriateness of the use of the SSBS-2 in the Portuguese context. It is also important to pursue the study of scale invariance. This could be done, for instance, by collecting data for a cross-validation sample with a procedure similar to the collection of data from sample 1. Specifically regarding the study of scale invariance, it is important to carry out further investigations to test for variables such as gender, age and ethnicity allowing for a better understanding of its strengths and limitations (Crowley & Merrell, 2003). It should also be considered the importance of conducting studies with broader samples to examine developmental differences (Caldarella & Merrell, 1997) and to allow for the development of norm references for age and gender. This is particularly relevant for national research given the lack of studies on the assessment of social competence with a broad spectrum of age groups. The Portuguese studies published to date (Gomes, 2008; Lemos & Meneses, 2002; Pedro & Albuquerque, 2007) focused only on specific age groups.

The Effects of a Social-Emotional Learning Program on Elementary School Children: The Role of Pupils' Characteristics[4]

Abstract

This quasi-experimental exploratory study investigated whether a social-emotional learning program, implemented during a one-year period, could lead to gains in social-emotional competencies and to a reduction in internalizing and externalizing problems. Furthermore, it analyzed which pupils would benefit most from the program. The program was applied to 213 4th-grade Portuguese pupils. 105 controls followed an *Origami* curriculum during the same period. 16 teachers also participated in this study. Self-report (pupils) and hetero-report (teachers) questionnaires were administered before and after the intervention. There were significant intervention gains in some social-emotional competencies, namely peer relations and social competence, but no gains were found on internalizing and externalizing problems. Intervention pupils with average pre-test scores profited more in self-management and peer relations than controls. Boys showed greater gains in self-management, aggressiveness and social problems than girls. There were no significant differences regarding socio-economic status.

Key Words

Social-Emotional Learning, School-based, Intervention, Prevention, Efficacy

[4] Raimundo, R., Marques-Pinto, A., & Lima, L. (in press). The effects of a social-emotional learning program on elementary school children: The role of pupils' characteristics. *Psychology in the Schools*.

Introduction

The current demands of society require additional skills from children, such as being socially and emotionally competent, in order to adapt themselves to the complex demands of growth and development (Payton et al., 2000) and to attain successful adult lives. This is the main reason why the marketplace is crowded with school-based programs geared towards addressing children's social and emotional development (Greenberg et al., 2003; Zins, Bloodworth, Weissberg, & Walberg, 2004).

However, schools have limited resources, time constraints and competing demands, such as to enhance academic performance, so educators must prioritize and effectively implement evidence-based approaches (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). Additionally, many well-intentioned programs used by schools lack a strong research framework, are not necessarily effective, or schools use them with poor fidelity (Durlak et al., 2011; Merrell & Buchanan, 2006; Weissberg, Kumpfer, & Seligman, 2003). Also, as they have been mainly implemented in the United States (Durlak et al., 2011; Zeidner, Roberts, & Matthews, 2002), it remains unclear to what degree they are appropriate for pupils in other national or cultural contexts (Diekstra, 2008; Weare & Gray, 2003; Zeidner et al., 2002). Moreover, there are few studies in the literature which analyze how pupils' characteristics might moderate the impact of these interventions, and some of them present contradictory results (Conduct Problems Prevention Research Group [CPPRG], 2010; Durlak et al., 2011; Greenberg, Domitrovich, & Bumbarger, 2001). Even fewer studies isolate the manner and attitude with which staff interact with children (Brown, Jones, LaRusso, & Aber, 2010; Diekstra, 2008; Greenberg, Kusche, Cook, & Quamma, 1995).

Therefore, the main purpose of this research was to examine the efficacy of a social-emotional learning (SEL) program on social-emotional competencies, and on the psychological adjustment of Portuguese elementary school children, as well as the moderating role of pupils' characteristics (such as pre-test behavioral outcomes, gender and socio-economic status - SES) in this process, after controlling for staff characteristics, by having the same trainer implementing a non-SEL program in the control group.

SEL Programs

The focus of most SEL programs is universal prevention and promotion – that is, preventing behavioral problems by promoting social-emotional competence (Zins & Elias, 2006). Although SEL may encompass many aspects, the primary elements include development of self-awareness and self-management skills to achieve school and life success; use of social awareness and interpersonal skills to establish and maintain positive relationships; demonstration of decision-making skills and responsible behaviors in personal, school and community contexts (CASEL, 2003). A recent meta-analysis focused exclusively on SEL programs (Durlak et al., 2011) showed that, compared to pupils in the control groups, those participating in universal SEL programs, aged between five and 18, significantly improved social-emotional competencies, attitudes about self, others, and school, pro-social behaviors, academic performance, and reduced conduct and internalizing problems. The impact of SEL interventions was similar to or, in some cases, higher than those achieved by other types of universal interventions aimed at preventing behavioral and social-emotional problems and promoting mental health, positive youth development, and academic achievement (Catalano, Berglung, Ryan, Lonczak, & Hawkins, 2002; Greenberg et al., 2001; Wilson & Lipsey, 2007), in each outcome category, especially for SEL skills.

SEL evidence base suggests that successful programs must be both well designed and well conducted (Durlak et al., 2011), i.e. be developmentally and culturally appropriate, promote generalization of newly-learned skills (CASEL, 2003; Durlak et al., 2011; Greenberg et al., 2003; Payton et al., 2000; Weissberg et al., 2003; Zins et al., 2004), include a written manual specifying the conceptual model and the intervention procedures of the program (Diekstra, 2008), and adhere to SAFE practices, i.e. ensuring that the program use a coordinated sequence of activities, active forms of learning, devote sufficient time and attention to social-emotional skill development, and have clear and specific SEL objectives (Durlak et al., 2011). Successful SEL programs also have a high level of structure and consistency in program delivery, and are carefully monitored to ensure that they are delivered as intended by their developers (Humphrey, Lendrum, & Wigelsworth, 2010). To achieve this, interventions must begin with efficacy trials, moving on to effectiveness studies and finally to broad dissemination trials (Flay et al., 2005). The present study is a quasi-experimental exploratory efficacy trial of a monitored SEL program. Some recent studies in the UK showed that when proper trialing is skipped and interventions are immediately rolled out on a national level, interventions may fail to significantly impact pupils' behavioral and academic outcomes (Hallam, 2009; Humphrey, Lendrum, et al., 2010).

The "Slowly but Steadily" Program

"Slowly but Steadily" is a universal program that draws concepts and techniques from the SEL framework by integrating competence-promotion and youth-development frameworks (Durlak et al., 2011), and is devised on the basis of best evidence on "what works". It is classroom-based and infused into the school curriculum, and has aimed at developing social-emotional competencies, enhancing psychological adjustment and fostering

academic performance by preventing or reducing behavioral and emotional problems in elementary school children. This program is based on the notion that social-emotional skills can be learned and taught in school, and that they require explicit instruction just like academic skills (Zins et al., 2004). “Slowly but Steadily” is a comprehensive program that emphasizes not only the teaching of skills, but also how to apply them to meaningful real-life situations in order to facilitate their generalization. It consists of 21 developmentally-appropriate 45-60 minute sessions, delivered weekly by school psychologists in the teachers’ presence, over one school year, with a sequenced set of activities that emphasize learning by doing and by interactive and reflexive experiences. The “Slowly but Steadily” curriculum is based upon a number of theoretical models, namely the social and emotional competence framework (Denham, Wyatt, Bassett, Echeverria, & Knox, 2009), the ABCD (affective, behavioral, cognitive, dynamic) model of development (Greenberg et al., 1995), the bio-ecological model (Brofenbrenner & Morris, 2006), and the social learning theory (Bandura, 1977). The program is structured according to the premise that social and emotional competence is based in a dynamic integration of emotions, behavior, and cognitions (the ABCD model of development) and that children cope by enhancing self and social awareness, self-managing emotions and by using relationship skills and social problem solving skills (social and emotional competence framework).

The program manual contains session plans, with SEL learning objectives, techniques and strategies to be implemented, materials to be used and the description of the activities for each session (Raimundo, 2007). The techniques and strategies used include didactic instruction, posters, storytelling activities, reflection/brainstorming underlying the most efficient strategies with open-ended questioning, modeling (through observation and imitation, Bandura, 1977), role playing, constructive feedback, social and self reinforcement

and group games. Skill concepts are typically presented via didactic instruction, storytelling activities, posters and modeling. Sometimes group games are used without prior explicit mention of the concepts, in order to get children more involved and ready to integrate skill concepts. Reflection/ brainstorming, role playing, constructive feedback and social and self reinforcement follow, giving children a chance to practice the skill with the trainer monitoring the level of understanding and skill attained, and allowing teachers to learn “on the job” how to develop social-emotional competencies and to generalize their new competencies to others classes, allowing for an enhancement in the school microsystem impact (Brofenbrenner & Morris, 2006). Finally, teachers are encouraged to promote generalization of those competencies during the week, by reminding pupils throughout the day to use them (especially before recess). The curriculum is divided into five units, each containing developmentally sequenced sessions to integrate and build on previous learning to give children a global vision of social-emotional competencies (Table 4).

Table 4

Structure and Content of the "Slowly but Steadily" Program

Unit	Sessions	Description of one example of an activity
Self-awareness, understanding and communication of emotions	25% of the curriculum; 6 activities	"Emotions Game" - Children have emotions displayed on cards which they have to enact to their group, who then has to guess the emotion. Emotions are taught in a developmental hierarchy, beginning with basic emotions and proceeding to more complex emotional states. Whenever necessary, the trainer models emotions. During the game, with the trainers' help, children try to reveal the internal cues which identify feelings in oneself and the external cues to identify feelings in others. Children are also made aware of the slight differences on those cues; or in the intensity of the expression, which may correspond to different emotions (e.g. furious, irritated and annoyed).
Social awareness, perspective taking and empathy	20% of the curriculum; 4 activities	"Being Different" - Consists of reading testimonies of a book, written by children of the same age, describing their brothers and sisters who have some kind of disability. A reflection follows the reading part focused on similarities and differences they may have with them; on the particularities of each person that make everyone different from everybody else; on thinking how everyone can be incapable of doing something, even temporarily; and how one feels when being discriminated against.
Emotion regulation (self-management)	25% of the curriculum; 3 activities	"Let's overcome bad feelings" - Consists of reading a short social situation story and asking children to label the most salient emotion. Children are then encouraged to describe situations where they have felt the same, and to tell how their body reacted, how they felt, what they thought, what they did, and what were the consequences of their actions.

		This is followed by a brainstorming session, where the most efficient strategies on how to deal with certain emotions are underlined, and these strategies are written on the board. The same activity is then repeated with other emotions and social situations.
Interpersonal skills, peer communication (assertiveness) and managing conflicts	25% of the curriculum; 6 activities	Group games where children have to work together in order to achieve the main goal of each game are the focus of this unit. A reflection session on the need to work together, the individual responsibility of each group and the importance of good communication skills follows, as well as role playing where children have to implement communication skills in order to negotiate a conflict situation.
Responsible decision-making and problem solving skills	5% of the curriculum; 2 activities	This last unit is also approached during the previous units. After reading a story where the steps to make a responsible decision are exemplified and reinforced by direct instruction, including considering all relevant factors and the likely consequences of alternative courses of action, children are encouraged to work in groups and to try to apply what they have learned. Examples of situations of their everyday life, involving decisions to be made, are presented in cards, discussed in groups and written in worksheets. The conclusions of each group are then presented to the class.

We hypothesized that this program would lead to larger gains in social-emotional competencies and in the psychological adjustment of intervention pupils, when compared with non-intervention controls (Hypothesis one).

The Role of Pupils' Characteristics

There is a substantial knowledge base supporting the potential of school-based interventions to positively impact behavioral and academic outcomes, by significantly

reducing problems and increasing competencies (Catalano et al, 2002; Greenberg et al., 2001); however, we still know little about how pupils' characteristics are related to differential program benefits (Durlak et al., 2011).

In a study involving a clustered randomized controlled trial of the universal SEL program, *Fast Track PATHS* curriculum, the intervention effect was stronger for the aggressiveness of pupils in elementary school whose aggression problems were rated (by teacher report) as being worse initially, and for the social competence of pupils in schools with fewer socioeconomic disadvantages. Also, peer report effects regarding aggressive, hyperactive-disruptive and pro-social behaviors were moderated by gender, with significant positive effects only for boys (CPPRG, 2010). However, this study did not assess the universal intervention alone; it also included a selected intervention, and schools at extreme levels of pupil poverty had a substantially higher rate of child turnover. A quasi-experimental design test of the *UK Resilience Program* among 7th-grade pupils, a universal intervention focusing on improving resilience and promoting accurate thinking, found similar results for internalizing self-report problems: the impact was greater for pupils with worse initial scores for symptoms of depression and anxiety, but on the other hand was greater (anxiety) for the more disadvantaged pupils (Challen, Noden, West, & Machin, 2010). In a randomized controlled trial study of the *PATHS* school-based SEL curriculum, delivered by elementary school teachers, Greenberg and colleagues (1995) found that children high in both internalizing and externalizing problems showed the most significant improvements in the ability to express and change emotions. A quasi-experimental test of the *Unique Minds School Program,* a universal prevention teacher-led program designed to promote cognitive-social-emotional skills on elementary school pupils, found no differences due to gender in the program's positive effects on pupils' self-efficacy, problem solving, social-emotional

competencies and math grades (Linares et al., 2005). Finally, in a quasi-experimental exploratory study of the *Responsive Classroom Approach* intended to promote a caring classroom environment for children and to integrate social and academic learning, Rimm-Kaufman and Chiu (2007) conclude that the intervention was equally effective for children from "at risk" (poverty, single parent status, low maternal education, limited English proficiency) and not "at risk" backgrounds, regarding social and academic domains.

Taken together, research suggests that our understanding of the moderating variables that influence the effects of the programs is still obscure (Durlak et al., 2011; Greenberg et al., 2001; Weissberg et al., 2003), with studies showing contradictory results regarding gender and SES. Additionally, given the reasonable assumption that staff qualities and characteristics, and the way with which they interact with pupils, can have a strong impact, one of the most compelling questions in SEL efficacy research and practice is still far from being answered, since one cannot be sure whether the positive results are due to the interventions or to unmeasured characteristics of the staff who delivered the programs (Brown et al., 2010; Diekstra, 2008; Greenberg et al., 1995).

In the current study, we addressed these additional issues by examining whether children (boys and girls) with varying levels of social-emotional competencies and behavior problems, and from different socioeconomic backgrounds, are differently affected by the program, which is delivered by the same school psychologist to the intervention group, while another (non-SEL) program is also implemented by the same trainer to all control children. We hypothesized that this program would lead to a great reduction in aggressiveness and anxiety among those pupils showing the highest pre-test levels (Hypothesis two). We also formulate the following research questions (a) Do pupils with low social-emotional

competencies profit better? (b) Do boys reveal more gains than girls? (c) Do pupils from low SES exhibit more gains than pupils from high SES?

Method

Research Design

Data was collected as part of a longitudinal study using a cohort-sequential design. The research design was a 2 (interventions vs. control) X 3 (pre vs. post vs. follow-up test), which could be considered quasi-experimental, as sampling was not totally random, and not all school/class effects could be controlled. Both groups were tested and re-tested under the same conditions. The current study examined only program effects shortly after the implementation (2 X 2 pre-post intervention/control design).

Participants

Three hundred and eighteen (175 boys, 143 girls) 4th-grade pupils (M_{age} = 9.31; *SD* = .56) from six Portuguese primary state schools in Lisbon participated in this study; 213 in intervention groups (11 classes) and 105 in control groups (five classes). 4th grade is the last year in Portuguese elementary schools. Sixteen teachers (11 from intervention classes and five from control classes) were also part of the sample. The total number of pupils per class ranged between 17 and 25 (*M* = 20.13). The SES was somewhat heterogeneous, but predominantly middle class. Schools varied slightly in ethnicity (most minorities were black/ African Portuguese, with some Eastern Europe, Asian and gipsy). Three schools (nine classes) had pupils from middle income and non-ethnically diverse populations and the other three (seven classes) had pupils from low-to-middle income and ethnically diverse populations. Almost

half of these children's parents had finished high school and/or obtained higher education (47%). No gender ($X^2(1)=.445$; $p=.51$) or age (F (1, 316)=.244; $p=.622$) differences were found between intervention and control groups, but the intervention groups (M SES = 3.23; SD = 1.32) had a higher SES (F (1, 294)=10.254; $p<.01$) than the control groups (M SES = 3.75; SD = 1.13). Also, as gender significantly affected treatment outcomes we included gender and SES, as covariates, in all subsequent analyses.

Procedure and Program Implementation

Six school head teachers were invited to participate in the study. Only one school refused to participate due to its commitment to another program. Interviews with teachers and heads were conducted in order to understand the behavioral and social characteristics of the groups, as well as school functioning and organization. During the first intervention year, the developmental and cultural suitability of program contents and activity types were analyzed, as well as the social validity of the prototype program, i.e. the social importance and acceptability of the program goals, procedures, and outcomes (Merrell, 2010). One measure, geared towards evaluating the intervention, was adapted to the Portuguese context. A training manual was prepared for the program beforehand, and daily records were kept to evaluate implementation quality. After evaluating the programs' feasibility, during the first-year-pilot study, some program content and activities were changed, the instrument was improved and the sample broadened. All six schools contacted in the first year agreed to participate in the formal efficacy trial during the second year of implementation. Class teachers and school heads were invited to individual meetings. Due to practical and ethical issues, it was not possible to randomly assign participants to the intervention or control conditions. Two schools did not want to introduce different instructional practices between pupils, so they only

agreed to intervention classes, while another only had one 4th-grade class, so only three out of six schools had control classes. Control classes were randomly selected. The groups were matched as much as possible in terms of catchment area. The program took place during school hours, as part of the curriculum. Weekly sessions were supported by a school psychologist with practice in group intervention with 4th-grade children, with the help of two undergraduate psychology students, in the teachers' presence. The control children received an Origami (Japanese art of folding paper) program, at the same time as the intervention, introduced by the same psychologist, in the teachers' presence, in order to reduce practice and Hawthorne effects. No SEL contents were explicitly developed in these groups.

Letters were sent home to inform parents of the nature and purpose of the study. Of the six schools in the evaluation, two utilized active informed consent and four utilized passive informed consent, because the program was already accepted as part of the school curriculum, following national legislation. Verbal assent was obtained from children. No incentives for participation were provided.

Multi-method, multi-agent assessments were gathered at baseline, post-test and one year follow-up. The measures were administered by the researcher to intervention and control children and teachers during the second (after a first presentation session) and last sessions of the program, with a pre-post period of eight months. The questionnaire instructions were read out loud to children, as they completed it, to lessen the effects of reading skills on their understanding of the items. The same class teachers completed three questionnaires for each pupil in order to provide some control for differences in perceptions. In one intervention, the class teacher was replaced during the school year, so these teachers' pre and post-test questionnaires were not included. In two control classes, teachers did not fill in the post-test questionnaires, so the pre-tests were withdrawn. Teachers' questionnaires were retrieved by

the third session (pre-test) and two weeks after delivering the program (post-test). Comparisons (*t* tests) of the children in the present study and children lost by attrition revealed no differences in any of the variables in the analyses.

Demographic data was collected at pre-test. Implementation fidelity (i.e., whether key components were delivered as prescribed), dosage (i.e., the amount of intervention administered to pupils) and teacher support and commitment to the program were assessed through weekly ratings of implementation quality by the researcher, with the results showing a high degree of fidelity, a very high degree of dosage, and a good level of teacher support and commitment to the program. Post-test evaluation included qualitative data from the teacher's perception of promoted competencies and psychological adjustment, the teacher's and pupil's satisfaction with the program, as well as national exam grades in Portuguese and math. We expected that the impact would be first (year two) seen in proximal social-emotional competencies and psychological adjustment, and later (year three) in distal academic performance (Linares et al., 2005). These results will be reported elsewhere, but are mentioned here to provide a fuller picture. Participants in the present study will continue to be monitored during their transition from elementary to middle school, up to the end of their first middle school year.

Measures

Variables were analyzed through self and hetero (teachers) report questionnaires, before and after program implementation. Two scales were used to evaluate social-emotional competencies (emotional knowledge and social competence) and one scale and two subscales to evaluate psychological adjustment (anxiety, aggressiveness and social problems). Program satisfaction was also measured. All scales, except program satisfaction, were used in previous

studies and demonstrated to have acceptable to good reliability and validity in Portuguese samples. Higher scores on scales reflected higher levels of social-emotional competencies and program satisfaction and lower levels of psychological adjustment.

Emotional knowledge. Emotional knowledge was assessed through the Assessment of Children's Emotions Scales - ACES (Schultz, Izard, & Bear, 2004; Portuguese adaptation by Alves, 2008). This scale evaluates children's emotion perception accuracy (EPA), and includes subscales concerning social behaviors (15 items, e.g. Jeff is being nice to everybody), social situations (15 items, e.g. Mary's grandfather died), and facial expressions (20 photographs in the Portuguese adaptation). In response to each item, children label the protagonist's feeling by choosing from among happy, sad, mad, scared, or no feeling. This is a measure of maximal behavior, because it requires respondents to complete a task that actually taps emotional knowledge. The EPA score reflected how often a child answered correctly to the 40 items for joy, sadness, anger, and fear across the three sections (Cronbach's $\alpha_{\text{pre-test}} = .58$, $\alpha_{\text{post-test}} = .56$). The "no feeling" items were not included in the EPA score.

Social competence. Social competence was evaluated by teachers through scale A of the School Social Behavior Scales – SSBS-2 (Merrell, 2002; Portuguese adaptation by Raimundo et al., in press), which includes 32 items (Cronbach's $\alpha_{\text{pre-test}} = .98$, $\alpha_{\text{post-test}} = .98$) that describe adaptive or positive behaviors which are likely to lead to positive personal and social outcomes. This scale is divided into three subscales. The Self-management/ compliance subscale (10 items; Cronbach's $\alpha_{\text{pre-test}} = .94$, $\alpha_{\text{post-test}} = .94$) measures social skills related to self-restraint, cooperation and compliance with the demands of school rules and expectations

(e.g. shows self-control). The Peer relations subscale (14 items; Cronbach's $\alpha_{\text{pre-test}}$ = .96, $\alpha_{\text{post-test}}$ = .96) measures social skills or characteristics that are important in establishing positive relationships with and gaining social acceptance from peers (e.g. interacts with a wide variety of peers). The Academic behavior subscale includes eight items (Cronbach's $\alpha_{\text{pre-test}}$ = .95, $\alpha_{\text{post-test}}$ = .95) that relate to competent performance and engagement in academic tasks (e.g. completes school assignments on time). All the items were rated using a five-point scale (1 = never to 5 = frequently).

Anxiety. The State-Trait Anxiety Inventory for Children - STAI-C (Spielberger, 1973; Portuguese adaptation by Matias et al., 2006) assessed the intensity of trait anxiety cognitions and symptoms by using only the second half of the full STAI-C measure (20 items; Cronbach's $\alpha_{\text{pre-test}}$ = .73, $\alpha_{\text{post-test}}$ = .76). Items (e.g. it is difficult for me to face my problems) were scored by pupils, using a three-point scale (1 = very little of the time to 3 = a lot of the time).

Aggressiveness. Aggressiveness was evaluated by teachers through a six-item scale (Aggressive Behaviors Questionnaire, Raimundo & Marques-Pinto, 2007), which assesses the frequency of direct and indirect forms of aggressive behaviors (Cronbach's $\alpha_{\text{pre-test}}$ = .90, $\alpha_{\text{post-test}}$ = .92). Items (e.g. provokes or threats peers) were rated using a five-point scale (1 = never to 5 = frequently).

Social problems. The 10 item social problems subscale of the Teachers Report Form - TRF (Achenbach, 1991; Portuguese adaptation by Fonseca et al., 1995) assessed social, behavioral and emotional externalizing problems (e.g. doesn't get along with other kids) on a

three-point scale (0 = not true to 2 = frequently true), filled out by teachers (Cronbach's $\alpha_{\text{pre-test}} = .85$, $\alpha_{\text{post-test}} = .90$).

Program satisfaction. Program satisfaction was evaluated through a three-item (e.g. did you like the program "Slowly but Steadily"?) self-report questionnaire (Cronbach's $\alpha = .77$) for pupils and a three-item (e.g. would you like to participate again in this program?) self-report questionnaire (Cronbach's $\alpha = .64$) for teachers. Items were scored by pupils and teachers, using a five-point scale (1 = not at all to 5 = very much).

Statistical Analysis

Sampling constraints did not seriously counter-indicate the use of parametric statistical analysis. *T* tests were used, for single comparisons regarding program satisfaction, two-way mixed repeated measures analyses of covariance (ANCOVA) to explore interactions between pre-post gains and group conditions, and one-way analyses of covariance (ANCOVA) to test group main effects. Intervention effects are reported first, followed by findings of more general developmental change (i.e. main effects for time), since the main purpose of this study was to test the efficacy of the program. A two-way mixed ANOVA was used to explore interactions between pre-test quartiles and pre-post gains in the intervention groups, and also a three-way mixed ANCOVA to investigate interactions among pre-post gains, group conditions, gender and SES. These analyses were followed, whenever relevant, by suitable conservative *post-hoc* tests. For single comparisons, effect sizes (ES) were calculated using Cohen's d (standardized difference between two means), and for multiple comparisons ES was derived from ANOVA and ANCOVA as partial eta-squared (η_p^2). Cohen (1988) suggests that eta-squared values of .01, .06, and .14 should be interpreted as small, medium and large

effects, respectively; most effect sizes in the social sciences, he reported, were between .01 and .09.

Results

No differences were found (t (1, 316) = .959, p=.338) between intervention (M = 4.50, SD = .67) and control groups (M = 4.43, SD = .72) in terms of program satisfaction, with both showing a strong acceptance by pupils. Similar results (t (1, 12) = 1.994, p=.069) were obtained for intervention teachers (M = 4.39, SD = .36) and control teachers (M = 3.78, SD = .84).

Effects on Social-emotional Competencies and Psychological Adjustment

Gain differences in all the variables studied were analyzed separately and are summarized in Table 5. A two-way mixed ANCOVA with ‘group’ (intervention vs. control) as a between-subjects factor, ‘time’ (pre-test vs. post-test) as a within-subjects factor, and gender and SES as covariates showed a significant interaction effect, with a significant advantage for the intervention group in peer relations and social competence. The effects encountered were small to moderate.

Table 5

Gain Differences with the Intervention

Group	Pre-test		Post-test				
	M	*SD*	*M*	*SD*	*F*	*p*	η_p^2
Peer Relations							
Intervention	3.46	.89	3.62	.88	22.446	<.001	.08
Control	4.06	.80	3.69	.91			
Social Competence							
Intervention	3.63	.83	3.78	.83	8.217	<.01	.03
Control	4.06	.81	3.90	.83			

There were also main time effects; both groups increased emotional knowledge ($F(1, 293) = 6.709$, $p < .01$, $\eta_p^2 = .03$) and academic behavior ($F(1, 253) = 6.562$, $p < .05$, $\eta_p^2 = .03$). Group main effects were also founded on peer relations ($F(1, 252) = 21.284$, $p < .001$, $\eta_p^2 = .08$), and on social competence ($F(1, 253) = 17.870$, $p < .001$, $\eta_p^2 = .07$).

Analyses of covariance (pre-test mean rating, gender and SES entered as covariates) were then performed in order to interpret group main effects. Results indicated that the interaction effect on peer relations ($F(4, 251) = 4.928$, $p < .05$, $\eta_p^2 = .02$) was also due to the program's intervention, while in the social competence ($F(4, 252) = .521$, $p = .471$) differences were mainly due to group differences in the pre-test.

Interaction effects were only significant for peer relations, after controlling for group main effects.

Effects of Pupil Pre-Test Competencies and Adjustment

In order to analyze whether there were differences in post-test mean ratings, depending on the mean ratings obtained in the pre-test, a mixed 2 X 2 X 4 ANCOVA was conducted (within-subjects Time, between-subjects Group and Quartile Group; Gender and SES as covariates). Interaction effects are summarized in Table 6.

Table 6

Pre-Post Results per Quartile of Pre-Test Result

			Pre-test		Post-test				
Competencies	Quartiles	*N*	*M*	*SD*	*M*	*SD*	*F*	*p*	η_p^2
			Intervention						
Self-							3.389	*	.03
Management	1st	49	2.62	.43	3.10	.68		*	
	2nd	56	3.58	.22	3.69	.52			
	3rd	42	4.15	.15	4.26	.52		***	
	4th	48	4.79	.18	4.63	.52			
	Total	195	3.76	.84	3.90	.80			
			Control						
	1st	19	3.02	.35	3.53	1.09			
	2nd	15	3.97	.21	4.04	.87			
	3rd	28	4.91	.19	4.41	.62			

	4th	____	____	___	____	___		
	Total	62	4.10	.85	4.05	.91		
			Intervention					
Peer							2.730	* .03
Relations	1st	54	2.37	.42	2.77	.62		**
	2nd	42	3.14	.13	3.34	.60		*
	3rd	50	3.80	.22	4.03	.65		**
	4th	48	4.60	.28	4.39	.56		
	Total	194	3.46	.89	3.62	.88		**
			Control					
	1st	20	3.15	.59	3.35	.59		
	2nd	18	4.00	.09	3.35	.97		
	3rd	16	4.79	.13	4.28	.90		
	4th	8	5.00	.00	4.12	.82		
	Total	62	4.06	.80	3.69	.91		

Note. *p < .05, **p < .01, ***p < .001

When both, the intervention and the control, groups were split into quartiles according to pre-test mean ratings, some significant pre-post X group X quartile interaction occurred for self-management and peer relations. This suggests that some quartile groups benefited from the intervention more than others, only in these two variables. Intervention gains in social competence were irrespective of pre-test quartiles. There were not any other gains, per

quartile, on the remaining variables. Intervention was efficient on preventing the drop on self-management on the middle-high quartile and on improving peer relations on the middle-low and middle-high quartiles. For the intervention group, *post hoc* analyses revealed that the lowest quartile and the middle-high quartile showed an increase in self management and that all the quartiles, except the highest one, also showed an increase in peer relations. There were not any significant differences for the control group.

Effects of Pupil Gender and SES

Social-emotional competencies and psychological adjustment were analyzed by gender and SES. A three-way mixed 2 X 2 X 2 ANCOVA on each variable Time (pre-test vs. post-test) X Gender (male vs. female) X Group (intervention vs. control) and SES as covariate showed significant differences per gender in self-management, aggressiveness and social problems (Table 7).

Table 7

Mean Ratings of Self-Management, Aggressiveness and Social Problems by Gender

		Pre-test		Post-test				
Gender	Group	*M*	*SD*	*M*	*SD*	*F*	*p*	η_p^2
				Self-Management				
Female	Interv.	3.97	.72	4.11	.75	6.712	.01	.03
	Control	4.07	.91	4.29	.59			
Male	Interv.	3.59	.90	3.72	.81			
	Control	4.13	.81	3.81	1.11			
				Aggressiveness				
Female	Interv.	1.43	.54	1.28	.46	4.342	<.05	.02
	Control	1.38	.55	1.13	.24			
Male	Interv.	1.81	.84	1.64	.74			
	Control	1.67	.64	1.74	1.06			
				Social Problems				
Female	Interv.	1.11	.18	1.12	.22	5.604	<.05	.02
	Control	1.07	.22	1.07	.16			
Male	Interv.	1.30	.32	1.27	.40			
	Control	1.05	.09	1.18	.30			

Note. Interv. = Intervention

Boys in the intervention group had higher gains in self-management, aggressiveness and social problems than boys in the control group. There were no differences in girls' gains between both groups. Since there were gender differences regarding these variables, a two-way mixed ANCOVA (between-subjects group, within-subjects time, SES as covariate) was performed for boys only. These analyses indicated a significant interaction effect with a significant advantage for boys from the intervention group in self-management ($F(1, 134) = 8.664$, $p < .01$, $\eta_p^2 = .06$), social problems ($F(1, 133) = 4.748$, $p < .05$, $\eta_p^2 = .03$) and a more modest advantage in aggressiveness ($F(1, 134) = 3.542$, $p < .10$, $\eta_p^2 < .03$). The effects encountered were all low-to-moderate. A main group effect was based on social problems ($F(1, 133) = 14.170$, $p < .001$, $\eta_p^2 = .10$); an ANCOVA (pre-test mean rating entered as the covariate) indicating that the interaction effect (Group: $F(3, 132) = 1.056$, $p = .306$, $\eta_p^2 = .008$; Covariate: $F(3, 132) = 68.504$, $p < .001$, $\eta_p^2 = .34$) was mainly due to group differences in the pre-test.

The interaction effects revealed that boys from the intervention group improved more in self-management and aggressiveness than controls, even after controlling for group main effects and SES, unlike girls who did not show interaction effects.

In addition, a three-way mixed 2 X 5 X 2 ANCOVA in each variable Time (pre-test vs. post-test) X SES (high vs. middle high vs. middle vs. middle low vs. low) X Group (intervention vs. control) and SES as covariate showed no significant differences by SES.

Discussion

The findings provide some preliminary support for the "Slowly but Steadily" program, suggesting that the deliverance of this universal SEL program, during one academic year, partially improves the social-emotional competencies and psychological adjustment of 4th-grade children. The results also allow us to pinpoint that gender seem to be a moderator of how much a child will profit from this program, but not SES. How far a child is from acquiring appropriate social-emotional competencies and being psychologically well-adjusted (baseline levels) emerged as a moderator of only two social-emotional competencies.

First, the average pupil who participated in this SEL program improved in peer relations and social competence compared to an average peer who did not take part in such a program. Furthermore, boys who participated in the program presented better self-management and lower levels of aggressiveness than their male peers who did not participate. Also, there were no negative unexpected effects. The program seemed to have an impact on behavioral problems (in boys) such as aggressiveness and social problems but not on anxiety. These results are similar to some other studies of universal approaches in schools, which had less effect on aggressive and disruptive behavior (Wilson & Lipsey, 2007), and on anxiety (Neil & Christensen, 2007) than targeted interventions (CPPRG, 2011; Diekstra, 2008). Maybe this occurred because the base rate of problem behaviors, in general education settings, is already low to begin with, making reductions to their scores unlikely (Merrell, 2010). Altogether, these findings are consistent with the only meta-analytic study focusing exclusively on universal school-based SEL programs done so far, which shows significant effects of SEL programs on behavioral outcomes (Durlak et al., 2011). Even with the improvement of only some competencies and with small-to-moderate effect sizes,

collectively, our results are in line with the findings reported in studies from other countries, partially supporting the cross-cultural generalization of the SEL programs' efficacy (CPPRG, 2010; Diekstra, 2008; Durlak et al., 2011). These results are however less impressive than those from other studies, maybe because the intervention was of relatively low intensity and administered over the course of a single academic year.

Second, our results did not support Hypothesis two. The lack of greater effects on the reduction of aggressiveness and anxiety, among those pupils showing the highest pre-test levels, was surprising given findings proceeding from other studies regarding the moderating effect of the baseline levels of aggressiveness (CPPRG, 2010) and self-reported symptoms of anxiety (Challen et al., 2010).

Third, gains were irrespective of pre-test levels, except for two variables. The program particularly benefited the children who were in the middle quartiles of self-management and peer relations. To benefit especially children who were most in need it would be necessary to implement an integrated provision of universal interventions (all children) and selective interventions (children at some risk) into a comprehensive (multicomponent) model sustained across development (Conduct Problems Prevention Research Group, 2011), that involved the child, school, family, and community (CPPRG, 2010; Domitrovich et al., 2011), in order to maximize impact (Domitrovich et al., 2011), by providing an additive effect (CPPRG, 2010), in an efficient way (Bradshaw, Zmuda, Kellam, & Ialongo, 2009). Furthermore, although pupils with above average social-emotional competencies at pre-test did not improve them directly through the program, they may also have benefited from it indirectly, as they are now dealing with classmates who enhanced some of their social-emotional competencies and reduced some of their previous externalizing problems (Merrell, Juskelis, Tran, & Buchanan, 2008). Also, the program may have had an indirect impact on children's perceptions of their

classroom (Brock, Nishida, Chiong, Grimm, & Rimm-Kaufman, 2008) or it may have enhanced the teachers' perceptions about their pupils (Rimm-Kaufman & Chiu, 2007).

Fourth, the data showed that gender moderated the effect of the program. The intervention effect was present for boys in self-management, aggressiveness and social problems, but not for girls. However, boys had higher mean levels of aggressiveness and lower mean levels of self-management than did girls. Knowing that universal interventions have less effect on internalizing problems (Diekstra, 2008) and boys are at greater risk for displaying externalizing problems (Dodge, Coie, & Lynam, 2006; Ialongo et al., 1999), perhaps this is why boys also benefited more from the program. Our results are in line with the findings of the moderating effect of gender on the impact of the *Fast Track PATHS* SEL curriculum on aggressiveness (CPPRG, 2010).

Fifth, the study results supported that 'low SES' children profit as much as 'high SES' children from the program, but not more, in keeping with what some researchers found in studies from other universal preventive school-based programs and their effects on aggressive behavior (Hahn et al., 2007; Wilson & Lipsey, 2007). Our result is similar to the finding of the *Responsive Classroom Approach* SEL program study (Rimm-Kaufman & Chiu, 2007), which did not find differences (social competencies) for children from "at risk", and "not at risk" backgrounds, but contradicts the results of both, the *Fast Track PATHS* curriculum study, where intervention effect for social competence was weaker in low-income schools (CPPRG, 2010), and the *UK Resilience Programme* study, where the intervention effect for anxiety was greater for the more disadvantaged pupils (Challen et al., 2010).

"Slowly but Steadily" was largely created based on the primary components of SEL programs and followed CASEL (Collaborative Academic Social and Emotional Learning) recommendations, especially regarding SAFE practices (Durlak et al, 2011) and the careful

monitoring of program deliverance. One strength of the study was that the control group also had a program, during the same period of time, which did not include the teaching of explicit SEL competencies, to counter potential placebo effects (Greenberg, 2010). To our knowledge, this is the first time that such a methodology was used in SEL programs. Both programs were implemented by the same school psychologist, so we reduced the probability of the program effects being more due to the implementer characteristics and the way he/she interacted with children, than to the program's theoretical framework and goals. Nor were they due to differences in program satisfaction for pupils and teachers, since there were none. Furthermore, "Slowly but Steadily" has social validity, by being highly accepted by pupils and teachers, who saw it as something that makes sense and meets their needs. Another strength of the study was that the intervention impact was assessed using data from multiple reporters (the participants themselves and teachers) and methods (self-reports, knowledge assessment and behavior ratings), which contribute to reducing common method and source biases (Caprara, Barbaranelli, Pastorelli, Bandura, & Zimbardo, 2000; Denham et al., 2009). Especially noteworthy was the use of a measure of *maximal* behavior, which actually taped the emotional knowledge construct in order to reduce bias and social desirability (Humphrey et al., 2010). Teachers who collected ratings did not deliver the intervention, which lends credibility to the findings, since it reduces the probability of an expectancy effect (Linares et al., 2005), which poses a threat to internal validity (Rimm-Kaufman & Chiu, 2007).

Limitations

However, these results should not be over-interpreted or accepted uncritically. First, our study was quasi-experimental, since sampling was not entirely random. Randomized control trials are not always feasible or practical in the school system, and insisting on them to

evaluate complex social interventions can often obscure the effect of an intervention (Catalano et al., 2002; Hahn et al., 2007) and affect external validity. Secondly, the program was implemented only over the course of one school year. It was not possible to implement booster sessions in the 5th-grade, as there was a reorganization of classes when children moved forward to middle school, with an unavoidable contamination of the control subjects. Thirdly, stronger attempts should be made in the future in order to promote generalization by means of daily activities carried out by teachers. Fourthly, although teacher ratings are generally viewed as one of the best methods for evaluating pupils' social behavior (Merrell, Buchanan, & Tran, 2006), it is possible that teachers' knowledge of the experimental condition may have influenced results, especially considering the high social validity of the program (CPPRG, 2010). Fifthly, because there is no standardized approach in measuring social and emotional skills (Durlak et al., 2011; Merrell, 2010), maybe these skills were not measured as accurately as they should be. Finally, despite the attempt to control for schools, it is possible that differences between experimental and control classes may have been influenced by systematic background teacher, class or school effects, i.e. individual and organizational factors that were not measured (Durlak et al., 2011; Greenberg et al., 1995; Ransford, Greenberg, Domitrovich, Small, & Jacobson, 2009).

Future Studies

A multi-year intervention program for all elementary school years, based on a whole school approach and including standardized training for teachers and ongoing technical support to facilitate the implementation and dissemination of the program, should be considered in future interventions, as well as encouraging the proactive involvement of parents and the community (Cooke et al., 2007; Domitrovich, Cortes, & Greenberg, 2007;

Merrell & Gueldner, 2010). Future studies should also prioritize randomized control trials (unit being school instead of classroom or individual) using larger samples, including suburban and rural school systems (Brown et al., 2010; Durlak et al., 2011), and increasing the number of classrooms/schools in each condition (intervention and control) to provide sufficient statistical power to use a multi-level model and enable assertions about the effectiveness of the program (Rimm-Kaufman & Chiu, 2007). Other recommendations are the inclusion of observations of the pupils' in their natural environment (Cooke et al., 2007), parental report (triangulated assessment), and pre-test information about academic achievement, in the assessment battery; applying a cost/benefit model to determine the fiscal impact of implementing the program (Bradshaw et al, 2009; Durlak et al., 2011); and to address other moderators of intervention outcomes such as child, family or community risk factors (Bradshaw et al., 2009) and child interactions with the environment (Domitrovich et al., 2007).

A stronger focus might also be needed on adapting the program to ensure that girls benefit more from it (Bradshaw et al., 2009). The impact on not only behavioral but also academic outcomes should be considered. Another important issue is the duration of gains found in this study. We recommend follow-up assessments in order to find out whether these effects remain statistically significant, as well as analyzing the existence of any possible "sleeper effects".

Managing our emotions and relating to others are among the greatest challenges that we face in life (Lopes & Salovey, 2004). Universal social-emotional curricula may not be intensive enough on their own to reach this goal, but they represent a step forward (Domitrovich et al., 2007). The present study adds one more element to this emerging mosaic,

and helps us understand that there are no simple formulae to be applied to all children and circumstances.

The Mid-Term Impact of a Socio-Emotional Learning Program on Elementary School children[5]

Abstract

A quasi-experimental study was used to investigate whether a social-emotional learning program, implemented during a one-year period, could lead to mid-term effects in emotional knowledge, anxiety and academic performance. A subsample of 102 5th-grade pupils from a previous controlled pre-post investigation participated in this follow-up study. Controls followed an *origami* curriculum during the same period. Data was collected before, shortly after and 10 months after the intervention using a self-report questionnaire, an emotional knowledge assessment and school grades. There were significant intervention gains in distal academic performance. Being at an intervention group amplified the impact of emotional knowledge on later academic performance. No evidence of "sleeper effects" was found regarding emotional knowledge and anxiety.

Key Words

Social-emotional learning, school-based, intervention, prevention, follow-up

[5] Raimundo, R., Marques-Pinto, A., & Lima, L. (2012a). *The mid-term impact of a socio-emotional learning program on elementary school children.* Manuscript submitted for publication.

Introduction

Overall, during the past 15/20 years, research on school-based mental-health and competence promotion has advanced greatly (Durlak, Weissberg, Dyminicki, Taylor, & Schellinger, 2011). Despite some inconsistent evidence base (Humphrey, Kalambouka, Wigelsworth, Lendrum, Lennie, et al., 2010), the only meta-analysis focused exclusively on school-based SEL universal interventions (Durlak et al., 2011) showed that, compared to participants in the control groups, pupils aged between five and 18 participating in universal SEL programs, significantly improved social-emotional competencies, attitudes about self, others, and school, pro-social behaviors, academic performance, and reduced externalizing and internalizing problems.

However, as programs have been mainly implemented in the United States (Durlak et al., 2011; Zeidner, Roberts, & Matthews, 2002), it remains unclear to what degree they are appropriate for pupils worldwide (Diekstra, 2008; Zeidner et al., 2002), thus creating some serious obstacles regarding possible generalizations or the 'internationalization' of findings (Diekstra, 2008). Additionally, there is a need to identify the degree to which program effects are sustained, reduced or amplified (Barlow, Tennant, Goens, Stewart-Brown, & Day, 2007; Diekstra, 2008; Durlak et al., 2011; Greenberg, 2010) in the mid to long-term, since follow-up controlled studies of these interventions are quite rare in the literature, and those outside the United States even rarer (Diekstra, Sklad, Gravesteijn, Ben & Ritter, 2008; Durlak et al., 2011). Most studies across Europe, with some exceptions (Humphrey, Kalambouka, Wigelsworth, & Lendrum, 2010) have used, at best, before and shortly-after evaluations (Weare & Nind, 2011). Finally, the often-noted peer review requirement of nested designs has

stifled innovation, by decreasing public funding to young prevention scientists (Greenberg, 2010).

The quasi-experimental exploratory efficacy trial study reported here examines the mid-term effects of a monitored SEL Portuguese elementary-school intervention, 10 months later, when the pupils were in middle school, without further experience with the program in the interim. A subsample of pupils from this previously controlled pre-post investigation (Raimundo, Marques-Pinto, & Lima, in press) was followed-up.

The 'Slowly but Steadily' program

'Slowly but Steadily' is a universal program that draws concepts and techniques from the SEL framework (CASEL, 2012). It was selected by Faria (2011), in the second international analysis published by Fundación Botín, as an example of a Portuguese social-emotional education program, that follows CASEL recommendations and questions the role of episodic, brief and non-continuous interventions. The program is classroom-based, infused into the school curriculum and aimed at developing social-emotional competencies, preventing or reducing behavioral and emotional problems, and fostering academic performance in elementary school children. It consists of 21 manualyzed developmentally-appropriate 45-60 minute sessions delivered weekly by educational psychologists in the teachers' presence, over one school year, with a sequenced set of activities that emphasize learning by doing and by interactive and reflexive experiences (Raimundo, 2007; Raimundo et al., in press).

The short-term effects revealed that 'Slowly but Steadily' was effective in improving some social-emotional competencies in intervention groups, namely peer relations and social competence. Also, intervention pupils with average pre-test scores profited more in self-

management and peer relations than controls, and boys showed greater gains in self-management, aggressiveness and social problems than girls. There were no significant differences in results regarding socio-economic status (Raimundo et al., in press).

Mid and long-term impact of SEL programs

In Diekstra and colleagues (2008) meta-analysis about social-emotional education programs more than half of the studies reported only immediate effects. Durlak and colleagues (2011) found that only 15% of SEL universal programs met the criteria of collecting follow-up data at least six months after the intervention ended.

Overall, the few studies which integrate follow-up analyses of school-based interventions show some diversity and even contradictory results. Some studies point to stability of effects over time. A randomized controlled trial of early elementary school-based, universal preventive intervention targeting early learning and behavior in economically disadvantaged youths, showed short-term improvements in academic outcomes, which were maintained in the long-term, in 12th grade (Bradshaw, Zmuda, Kellam, & Ialongo, 2009). Humphrey, Kalambouka, Wigelsworth, and Lendrum (2010) reported that the positive impact of the short social-emotional intervention "Going for Goals", developed in the UK as part of the primary social and emotional aspects of learning (SEAL), on social-emotional skills of children selected for extra support was sustained seven/eight weeks later.

In other studies, the effects were maintained depending upon pupils' or programs' implementation characteristics. Random assignment of children at risk for life-course-persistent conduct problems, to the 'Fast Track Prevention Program' (1st through 10th grades), revealed that the intervention prevented externalizing psychiatric disorders even 2 years after the interventions ceases, but only among the highest-risk group (Conduct Problems

Prevention Research Group [CPPRG], 2011). Results at follow-up, in middle school, of the elementary-school intervention program 'Child Development Project' revealed that intervention pupils were more engaged in and committed to school, more pro-social and engaged in fewer problem behaviors than comparison pupils. But those who experienced high implementation of the program (i.e., program implemented widely throughout the school) also had higher academic performance and associated with more pro-social and less antisocial peers than their matched comparison pupils (Battistich, Schaps, & Wilson, 2004).

Other studies report a so called 'sleeper effect' (Diekstra, 2008; Merrell, Juskelins, Tran, & Buchanan, 2008; Neil & Christensen, 2007), with results being better at follow-up than at post-test. Elementary school children who received 'The Seattle Social Development Project' experienced more positive perceptions about learning and long-term school bonding at age 18 when compared to controls (Hawkins, Guo, Hill, Battin-Person, & Abbott, 2001). The implementation among elementary-school children with special needs, of a randomized intervention trial of the 'Promoting Alternative Thinking Strategies' (PATHS) curriculum slowed the growth of internalizing and externalizing behaviors and decreased depression only two years later (Kam, Greenberg, & Kusche, 2004).

There are other studies which report a substantial decrease of effects over time (Hahn et al., 2007; Diekstra et al., 2008), though not to the level of insignificance (Diekstra, 2008). Durlak and colleagues' (2011) meta-analysis showed that the mean follow-up effect sizes (ESs), although smaller, remained significant for all outcomes in spite of the reduced numbers of studies assessing each outcome. A quasi-experimental design test of the 'UK Resilience Program' among 7th-grade pupils found that, on average, the effect of the intervention on academic and behavioral (internalizing) problems lasted only as long as the academic year, having faded in the two-year follow-up (Challen, Noden, West, & Machin, 2011).

In the current study, we addressed these controversial issues by examining whether children are affected, in the mid-term, by the 'Slowly but Steadily' SEL program. Thus, we formulate a first research question: (a) would the intervention show 'sleeper effects' by leading, in the mid-term, to larger gains in emotional knowledge and lower levels of anxiety in intervention pupils when compared with controls?

Intervention's impact over academic performance

There is some evidence that pupils frequently show worse academic performance (with increased rates of retention) at the end of their first year in middle school than in the final term at elementary school (Hargreaves & Galton, 2002; Ministry of Education of Portugal, 2011). Moreover, there is longstanding literature that supports the linkage between student social-emotional and academic competence, with some studies showing that emotional knowledge (Izard et al., 2001) and social competence (Caprara, Barbaranelli, Pastorelli, Bandura, & Zimbardo, 2000; Ketler, Elliott, Davies, & Griffin, 2012) are good predictors of later academic performance.

In an era of academic accountability, receptivity toward integrating SEL programming into the curriculum is dependent upon empirical evidence demonstrating improvements, not only on social and emotional competence, but also in academic performance (Brackett, Rivers, Reyes, & Salovey, 2012). However, only 16% of the SEL studies of Durlak and colleagues' (2011) meta-analysis collected information on academic performance at post.

The overall picture is that of significant improvement in academic performance following attendance of a SEL program (Diekstra, 2008; Durlak et al., 2011), so we expected the impact of our program to be seen first on proximal social-emotional competencies and psychological adjustment, and later on distal academic performance (Hypothesis one). We

also formulate a second research question: (b) does the intervention condition plays a role in the relation between emotional knowledge and academic performance? More specifically, although no short-term intervention effects were found for emotional knowledge (Raimundo et al., in press), does the participation in the program amplify the impact of emotional knowledge on academic performance?

Method

Research design

Data was collected as part of a larger longitudinal study using a cohort-sequential design. The research design was a 2 (interventions vs. control) x 3 (pre vs. post at 4th grade - vs. follow-up at 5th grade), that could be considered quasi-experimental, as sampling was not totally random, and not all school/class effects could be controlled. Both groups were tested and re-tested under the same conditions.

Participants

A total of 318 (175 boys, 143 girls) 4th-grade pupils (M_{age} = 9.31; *SD* = .56) from six Portuguese primary Lisbon public schools in Lisbon participated in a previous study regarding the program effects shortly after the implementation, 213 in intervention groups (11 classes) and 105 in control groups (five classes). Approximately one third of the original sample, i.e., 102 (59 boys, 43 girls) 5th-grade pupils participated in this follow-up study, 74 (34.7%) from eight previous intervention groups and 28 (26.7%) from four previous control groups. SES was somewhat heterogeneous but predominantly middle or lower-middle class (62.5%) and 40.3% of these children's parents had, at least, finished high school. Intervention

and control groups were comparable in terms of gender ($X^2(1) = 1.587$; $p = .208$), age (F (1, 95) = .441; $p = .508$) and SES (F (1, 100) = .433; $p = .512$).

X^2 and one-way ANOVA did not show any evidence that the dropout was selective with respect to gender ($X^2(1) = .480$; $p = .489$), but there was a significant difference regarding SES (F (1, 316) = 7.742; $p = .006$) and school provenience of participants ($X^2(5) = 90.300$; $p < .001$). The dropout group ($M = 3.24$; $SD = 1.26$) had a higher SES than the follow-up group ($M = 3.65$; $SD = 1.15$) and showed ($M = .66$; $SD = .14$) a greater level of emotional knowledge at post-test (F (1, 315) = 4.481; $p < .05$), when compared with pupils of the follow-up group ($M = .63$; $SD = .11$). No other differences regarding the levels of emotional knowledge (pre-test), anxiety (pre and post-test), and academic performance (post-test) were found in the analyses.

Procedure and program implementation

Interviews with six head teachers were conducted, following an invitation to participate in the study. During the first intervention year, the developmental and cultural suitability of the prototype program contents and activity types were analyzed, as well as its social validity. A training manual was prepared for the program beforehand, and daily records were kept to evaluate implementation quality. After evaluating the programs' feasibility, during the first-year-pilot study, some program contents and activities were changed and the sample broadened for the formal efficacy trial during the second year of implementation. Due to practical and ethical issues, it was not possible to randomly assign participants to the intervention or control conditions, but control classes were randomly selected. The program took place during school hours as part of the curriculum. Weekly sessions were implemented by an educational psychologist experienced in group interventions, with 4th-grade children,

aided by two undergraduate psychology students, in the teachers' presence. The control children received an origami (Japanese art of folding paper) program at the same time as the intervention group, guided by the same psychologist, in the teachers' presence, in order to reduce practice and Hawthorne effects. No SEL contents were explicitly developed in these groups.

Letters were sent home beforehand to inform parents of the nature and purpose of the study, and to ask for their consent whenever the schools deemed it necessary. Verbal assent was obtained from children. No incentives for participation were provided.

Multi-method, multi-agent assessments were gathered at baseline, post-test and follow-up. Demographic data was collected at pre-test. The measures were administered by the researcher to intervention and control children and teachers during the second (after a first presentation session) and last sessions of the program, with a pre-post period of eight months. National exam grades were also collected at the end of the 4th-grade. Data was collected again, 10 months later, at the end of the 5th-grade, including school grades and questionnaires only administered to children, since teachers switched in the transition from the 4th to the 5th-grade. Implementation fidelity was assessed through weekly records collected by the provider after each session of the program, and at post-test through questionnaires filled by the teachers who assisted the implementation and the pupils who received it. These results will be reported elsewhere, but are mentioned here to provide a fuller picture.

The current study examined only program effects at the follow-up moment, after participants had transitioned from elementary to middle school. The vast majority of pupils went to middle school in that district, so we asked permission to those two middle schools to collect the follow-up data, but only one of them accepted. Strenuous attempts were then made to collect data from children attending the second middle school. Parents from these

participants were mailed and asked to encourage and let their children participate in the follow-up, by returning by mail the fulfilled questionnaires, but still there was a significant difference regarding school provenience of participants, favoring, as expected, pupils from the school which had authorized follow-up data collection (81, 37%).

Measures

Emotional knowledge. Emotional knowledge was assessed through Assessment of Children's Emotions Scales - ACES (Schultz, Izard, & Bear, 2004; Portuguese adaptation by Alves, Cruz, Duarte, & Martins, 2008). This scale evaluates children's emotion attribution accuracy, and includes subscales concerning social behaviors (15 items, e.g. 'Jeff is being nice to everybody'), social situations (15 items, e.g. 'Mary's grandfather died'), and facial expressions (20 photographs, in the Portuguese adaptation). In response to each item, children label the protagonist's feeling by choosing between happy, sad, mad, scared, or no feeling. The EPA score reflected how often a child answered correctly to the 40 items for joy, sadness, anger, and fear across the three sections (Cronbach's $\alpha_{\text{pre-test}} = .58$, $\alpha_{\text{post-test}} = .56$ $\alpha_{\text{follow-up}} = .60$. The 10 "no feeling" items were not included in the EPA score.

Anxiety. The State-Trait Anxiety Inventory for Children - STAI-C (Spielberger, 1973; Portuguese adaptation by Matias et al., 2006) assessed the intensity of trait anxiety cognitions and symptoms by using only the second half of the full STAI-C measure (20 items; Cronbach's $\alpha_{\text{pre-test}} = .67$, $\alpha_{\text{post-test}} = .73$, $\alpha_{\text{follow-up}} = .82$). Items (e.g. 'it is difficult for me to face my problems') were scored by pupils, using a three-point scale (1 = *very little of the time* to 3 = *a lot of the time*).

Academic performance. Academic performance was measured by collating the participants school grades on Portuguese and Mathematics 4th-grade national exams and by summing their grades on both disciplines at the end of the 5th-grade. Portuguese and Maths grades were then averaged as a composite measure of academic performance using a five-point scale (1 = *bad* to 5 = *very good*) for both 4th and 5th-grade.

Higher scores reflected higher levels of emotional knowledge, anxiety and academic performance. Sampling constraints did not seriously counter-indicate the use of parametric statistical analysis. Two-way mixed repeated measures analyses of variance (ANOVA) were employed to explore the effect of pre-post gains and group conditions on the program's impact 10 months later. Multiple linear regression analyses were used to assess the program's condition moderation effect in the relation between emotional knowledge and academic performance. Unstandardized coefficients were preferred instead of standardized ones, following Fairchild and McQuillin's (2009) indication to determine moderation effects. All analyses were followed, whenever relevant, by suitable conservative post-hoc tests. Two measures of ESs were used. For multiple comparisons, ES was derived from ANOVA as partial eta-squared (η_p^2) and from multiple regression analysis as R square change (ΔR^2). Cohen (1988) suggests that eta-squared values of .01, .06, and .14 and R square change values of .02, .13 and .26 should be interpreted as small, medium and large effects, respectively.

Results

The data analysis was conducted only on those pupils present at pre-test, post-test and also in the follow-up. Thus, all the effects were analyzed on the same pupils. Although this

represents a sample loss of almost 68%, it was considered an acceptable price to pay for a cleaner analysis of the data.

Program effects on emotional knowledge, anxiety and academic performance 10 months later

Means and standard deviations from pre, post and follow-up data are summarised in Table 8 for both intervention and control groups.

Table 8

Pre-post-follow-up Data for Intervention and Control Groups

	Pre-test		Post-test		Follow-up	
Competencies	Mean	SD	Mean	SD	Mean	SD
Intervention						
Emotional Knowledge	.54	.12	.62	.09	.78	.08
Anxiety	1.89	.29	1.88	.29	1.74	.33
Academic Performance	_____	____	3.28	.75	3.22	.84
Control						
Emotional Knowledge	.53	.11	.64	.16	.79	.06
Anxiety	1.95	.21	1.85	.27	1.71	.25
Academic Performance	_____	____	3.48	.62	3.04	.69

Differences in gains on the three variables studied were then analyzed separately. A two-way mixed ANOVA 2 x 3 with 'group' (intervention vs. control) as a between-subjects factor and 'time' (pre-test vs. post-test vs. follow-up) as a within-subjects factor was performed to analyze emotional knowledge and anxiety. No interaction effects were found for emotional knowledge ($F(1, 100) = .837$, $p = .357$) nor for anxiety ($F(1, 100) = 1.366$, $p = .245$).

A two-way mixed ANOVA 2 x 2 with 'group' (intervention vs. control) as a between-subjects factor and 'time' (post-test vs. follow-up) as a within-subjects factor showed a significant interaction effect with a significant advantage for the intervention group on academic performance ($F(1, 100) = 6.171$, $p < .05$, $\eta_p^2 = .06$). The effect encountered was considered moderate.

There were also time main effects with both groups increasing emotional knowledge ($F(1, 100) = 470.550$, $p < .001$, $\eta_p^2 = .83$), and decreasing anxiety ($F(1, 100) = 28.619$, $p < .001$, $\eta_p^2 = .22$) and academic performance ($F(1, 100) = 11.390$, $p < .01$, $\eta_p^2 = .10$). Effect sizes were considered large for the first two variables and moderate for academic performance. Post-hoc repeated measures showed a large increase on emotional knowledge, especially from T2 to T3 ($F(1, 100) = 145.104$, $p < .001$, $\eta_p^2 = .74$), but also from T1 to T2 ($F(1, 100) = 52.627$, $p < .001$, $\eta_p^2 = .35$), and also a large significant decrease on anxiety from T2 to T3 ($F(1, 100) = 15.901$, $p < .001$, $\eta_p^2 = .14$) and a marginally significant decrease from T1 to T2 ($F(1, 100) = 2.942$, $p = .089$, $\eta_p^2 = .03$). No group main effects were found for emotional knowledge, anxiety or academic performance.

Moderation effects of the program on the relations between variables

A multiple linear regression analysis was used to test for a moderation effect of the program condition (intervention vs. control group) in the relation between proximal social-emotional competencies (emotional knowledge) and distal academic performance. Gender and SES effects were controlled.

Table 9

Moderated Regression Analysis with Emotional Knowledge and Program Condition predicting Academic Performance at Follow-up

					Overall			
Models	B	SE	β	*t*	Adj.R^2	ΔR^2	*F*	*df*
Model 1					.270	.299	10.332**	4, 97
Emotional Knowledge (T2)	1.554	.611	.219	2.545*				
Program Condition	.120	.155	.067	.774				
Gender	.073	.140	.045	.522				
SES	-.322	.060	-.462	-5.317**				
Model 2					.310	.046	6.678*	1, 96
Emotional Knowledge (T2)	.210	.789	.030	.266				
Program Condition	-1.823	.767	-1.018	-2.377*				
Gender	.065	.136	.040	.478				
SES	-.297	.060	-.427	-4.987**				
Interaction	3.100	1.200	1.116	2.584*				

Note. *p < .05, **p < .01

Table 9 displays the moderation results, which show significant interaction effects of the program condition with emotional knowledge (interaction term – B = 3.100, t = 2.584, p <

.05) to predict academic performance 10 months after the implementation of the program, even after controlling for gender and SES. Post-hoc regression analyses based on estimated values of the criterion variable on the respective predictor considering, separately, the intervention and the control groups, were then performed. They revealed that pupil's academic performance at the follow-up was predicted by emotional knowledge level at the post-test, in the intervention group ($\beta = .443$, $p < .001$) but not in the control group ($\beta = .023$, $p < .908$). This small moderation effect represented an increase of 4.6% in the effect of emotional knowledge levels at post-test on academic performance 10 months later.

Discussion

This article presents findings about the mid-term impact of the 'Slowly but Steadily' program on 5th-grade pupils after its implementation during the previous academic year. The results support our hypothesis, meaning that the impact of a less-than-one school year program was effective in improving some proximal social-emotional competencies and psychological adjustment (Raimundo et al., in press) and later distal academic performance. In addition, being at an intervention group amplified the impact of emotional knowledge on later academic performance, even after controlling for gender and SES. On the other hand, no evidence of 'sleeper effects' at follow-up was found regarding emotional knowledge and anxiety.

First, the program was efficient in preventing the drop in academic performance as pupils' transfer from elementary to middle school. This finding is consistent with the meta-analytic study of Durlak and colleagues (2011), which shows significant effects of SEL programs on academic performance in other countries, partially supporting the cross-cultural

generalization of SEL programs efficacy (Diekstra, 2008; Durlak et al., 2011). Especially noteworthy, from an educational policy perspective, is the practical value of the effect size obtained, given that academic performance is considered an outcome more difficult to change when compared with assessments of knowledge, attitudes and social and cognitive skills (Durlak, 2009). Moreover, it was possible to obtain distal academic performance impact with a non-school staff implementer, contradicting general findings reported by Diekstra (2008). Also, there were no significant differences between intervention and control groups regarding academic performance shortly after the implementation: they only appeared one year later. Although pre-test assessment of academic performance is absent in this study, the intervention effect is somehow difficult to explain due to other external or organizational non-measured factors that would have interfered meanwhile, given that, by the 10-months follow-up, intervention and control pupils were combined in other classes in the middle school, thus providing opportunities for contamination across groups.

Second, no ‘sleeper effects’ were found, in the mid-term, regarding a potential improvement in emotional knowledge and a reduction of the levels of anxiety in intervention pupils when compared with controllers, thus not supporting some authors (Barlow et al., 2007; Diekstra, 2008; Hawkins et al., 2001; Kam et al., 2004; Merrell et al., 2008; Neil & Christensen, 2007) which point to larger effects at follow-up than at post-test. Moreover, results indicate a general developmental tendency, irrespective of the program condition, with pupils’ showing an improvement in emotional knowledge and a reduction of anxiety 10 months after implementation, which may explain the lack of an intervention effect. Furthermore, other universal intervention approaches in schools also had less effect on anxiety (Neil & Christensen, 2007) or other internalizing problems (Barlow et al., 2007;

Weare & Nind, 2011) than more intense targeted interventions (CPPRG, 2011; Diekstra, 2008).

Third, although no short-term intervention effects were found for emotional knowledge (Raimundo et al., in press), the program condition moderated the impact between emotional knowledge and its mid-term impact on pupils' academic performance. This finding is in line with others pointing to the important indirect effect of emotional knowledge on later academic performance (Izard et al., 2001), functioning as an academic enabler.

The present study highlights the mid-term impact of a SEL Portuguese program in a scenario of a reduced number of evidence-based interventions identified in Europe (Weare & Nind, 2011), particularly in continental European countries (Diekstra, 2008). It is also unique in that it provided the implementation of a non-SEL program in the control group, during the same period of time, to counter potential placebo effects (Greenberg, 2010). To our knowledge, this is the first time that such a methodology was used in SEL research. Both programs were implemented by the same psychologist, reducing the probability of the program effects being more due to implementer characteristics and the way he/she interacted with children, than to the program's theoretical framework and goals.

A methodological strength of the study is that it contains all the features required by previous meta-analytic studies (Diekstra, 2008; Durlak et al., 2011), including its focus on longitudinal outcomes with data being collected more than six months after the end of the intervention (Durlak et al., 2011). Other methodological strengths were the use of previously tested assessment instruments and multiple methods (self-report, knowledge assessment and school grades) of data collection, retaining the same post-test measures and having the same individuals complete the assessment measures (except for school grades), which contributed to reducing common method and source biases (Caprara et al., 2000; Denham, Bassett,

Echeverria, & Knox, 2009). Especially noteworthy was the use of a measure of *maximal* behavior, which required respondents to complete a task that actually taped the emotional knowledge construct in order to reduce bias and social desirability (Humphrey, Kalambouka, Wigelsworth, Lendrum, Lennie et al., 2010). We also followed the recommendation of using a self-report measure for evaluating children anxiety (Denham et al, 2009). Moreover, only school records of grades were used to measure academic performance and not pupils' self-reports as recommended by Durlak and colleagues (2011).

Limitations and recommendations

This study has several limitations that should be noted. First, there was a high loss to follow-up, with the retention rate being less than ideal. The dropout group had a higher SES and emotional knowledge level at post-test than the followed-up group and a slight differential attrition between both groups might account for the results, which may put into question the external validity of the findings. Secondly, longitudinal follow-up longer than 10 months would be useful. Thirdly, the emotional knowledge measure had relatively low reliability and this potentially undermined the precision of our intervention estimate due to measurement error. Fourthly, the intervention was of relatively low intensity and administered over the course of a single academic year (Bradshaw et al., 2009). Interventions of longer intensity and duration (multiple years) are preferred to produce greater effects (Hawkins et al., 2001; Weare & Nind, 2011) on pupils' behavior. Finally, not all variables analyzed at pre and post-test were analyzed at follow-up, making inferences about the maintenance, reduction or amplification of post-test intervention gains impossible, because of a change of teachers from elementary to middle school.

The findings in this study suggest several research directions. Future studies should include pre-test information about academic performance in the assessment battery, prioritize randomized control trials (unit being school instead of classroom/individual) using larger samples (Durlak et al., 2011), include suburban and rural schools to allow the examination of the extent to which the program may be more or less effective depending on pupils characteristics (Bracket et al., 2012; Rimm-Kaufman & Chiu, 2007), and increase the number of classrooms/schools in each condition (intervention and control) to provide sufficient statistical power to use a multi-level model to detect classroom effects (Rimm-Kaufman & Chiu, 2007).

Another important issue is to carefully analyze similar forms of intervention activities in the comparison groups (Greenberg, 2010), since some prevention/intervention program-like activity in the broad domain of social-emotional development was reported in our control classrooms. This suggests the importance of examining the quality of implementation (Berkel et al., 2011). Future work examining mediating factors (Brackett et al., 2012) is also recommended.

The present study provides further empirical evidence for educational psychologists working with young people in a group modality (Ruttledge & Petrides, 2012). The implementation of 'Slowly but Steadily' by educational psychologists, was not only well-succeeded in improving some social-emotional competencies and reducing externalizing problems on the short-term (Raimundo et al., in press), but also in preventing the deterioration of academic performance of pupils following their transition to middle school.

Implementation Fidelity of a Social-Emotional Learning Program: Role of Implementation on Program Outcomes and the Factors Affecting Implementation[6]

Abstract

The purpose of this study was to investigate the quality of implementation fidelity of the social-emotional learning elementary school-based program "Slowly but Steadily". A subsample of 213 4th-grade intervention pupils and 11 teachers from a previous controlled pre-post investigation participated in this study. Self-report (pupils) and hetero-report (teachers) outcome questionnaires were administered before and shortly after the intervention. Weekly checklists, logs and final evaluation questionnaires were also used to assess implementation fidelity. A high level of implementation fidelity of the intervention (with good levels of adherence, dosage and pupil's engagement) was obtained. Better pupil's behavior promoted higher levels of program adherence and pupil's engagement, which was also promoted by higher levels of teacher´s support and commitment to the program. Adherence to the program was positively associated with an increase of some social competencies and a decrease of externalizing problems.

Key Words

Implementation Fidelity, Social-Emotional Learning, Programs, School

[6] Raimundo, R., Marques-Pinto, A., & Lima, L. (2012b). *Implementation fidelity of a social-emotional learning program: Role of implementation on program outcomes and the factors affecting implementation.* Manuscript submitted for publication.

Introduction

Social and emotional learning (SEL) programs are one of the most successful methods of promoting the positive development of pupils (Collaborative for Academic, Social, and Emotional Learning [CASEL], 2012). Research findings from a meta-analytic study of 213 controlled studies indicate that SEL programming improves pupils' positive social behavior and academic achievement while reducing their conduct problems and emotional distress (Durlak et al., 2011).

The quality of implementation or the way in which a program is implemented is critically important (CASEL, 2012) and is known to promote social and emotional development (Durlak et al., 2011), with stronger program fidelity being related with stronger program outcomes (Dane and Schneider, 1998; Domitrovich and Greenberg, 2000; Durlak and DuPre, 2008; Dusenbury et al., 2003). Nevertheless, many investigators assess program outcomes without examining most, if any, aspects of implementation, the factors that inhibit or promote implementation fidelity (Domitrovich and Greenberg, 2000; Durlak and DuPre, 2008; Sanetti et al., 2011; Webster-Stratton and Herman, 2010), or the role of implementation quality on program outcomes (Benner et al., 2010; Bickman et al., 2009; Carroll et al., 2007; Domitrovich and Greenberg, 2000; Durlak and DuPre, 2008; Mihalic et al., 2008; Rimm-Kaufman and Chiu, 2007; Sanetti et al., 2011).

This paper presents the results of a process evaluation focused on identifying the extent to which a SEL Portuguese elementary school-based program was successfully implemented, during one school year. Implementation fidelity dimensions were analyzed, factors influencing implementation quality were identified and the role of fidelity of implementation on program outcomes was examined.

The "Slowly but Steadily" Program

"Slowly but Steadily" is a universal elementary school-based program that draws concepts and techniques from the SEL framework (CASEL, 2012) and aims at developing social-emotional competencies, preventing or reducing behavioral and emotional problems, and fostering academic performance. It was selected in the second international analysis published by Fundación Botín (Faria, 2011) as an example of a social-emotional education Portuguese program that follows CASEL recommendations and questions the role of episodic, brief and non-continuous interventions. The program is classroom-based and infused into the school curriculum, and consists of 21 manualyzed developmentally-appropriate 45-60 minute weekly sessions, delivered by school psychologists in the teachers' presence, over one school year, with a sequenced set of activities that emphasize learning by doing and by interactive and reflexive experiences (Raimundo, 2007; Raimundo et al., in press).

In a controlled pre-post investigation with 318 fourth-grade pupils, "Slowly but Steadily" was effective in improving some social-emotional competencies in intervention groups, namely peer relations and social competence. Also, intervention pupils with average pre-test scores profited more in self-management and peer relations than controls, and boys showed greater gains in self-management, aggressiveness and social problems than girls. There were no significant differences in results regarding socio-economic status. Furthermore, the program was considered worthwhile, proving its social validity, by being highly accepted by pupils and teachers (Raimundo et al., in press). A subsample of 102 fifth-grade pupils participated in a follow-up study, 10 months later, with the intervention group showing significant intervention gains in distal academic performance when compared with controls (Raimundo et al., manuscript submitted for publication).

Implementation Fidelity

Selecting a well-designed, strongly theoretically supported program is not enough (CASEL, 2012), because there can be great variability in the way it is delivered (Dusenbury et al., 2003). Implementation fidelity, that is, the quality or the way in which a program is implemented, has of late become a more frequent topic of discussion, but even so in a recent review of school-based intervention studies only 50.2% reported quantitative data regarding any dimension of implementation fidelity (Sanetti et al., 2011).

Dimensions and facilitators of implementation fidelity

No theoretical framework exists to guide research on how different aspects of implementation may function in conjunction to affect outcomes (Berkel et al., 2011). Neither is there consensus among investigators on what constitutes implementation fidelity (Dane and Schneider, 1998), and sometimes there is substantial overlap on the terms and definitions for each dimension of implementation fidelity (Berkel et al., 2011; Dusenbury et al., 2003), and on the specific factors that affect implementation (Durlak and DuPre, 2008). These inconsistencies in the conceptualization of fidelity have, consequently, reduced the interpretability of studies examining its effects (Dane and Schneider, 1998).

More recent conceptualizations suggest that implementation fidelity, or treatment integrity or implementation quality as it has also been named, is a multidimensional construct (Sanetti et al., 2011), a “comprehensive” (Carroll et al., 2007) higher-order category, subsuming the other dimensions (Durlak and DuPre, 2008). Although near 20 different dimensions have been proposed across multiple models, four dimensions are common across all (Sanetti et al., 2011): adherence (the degree to which an intervention was implemented as

designed; Berkel et al., 2011; Carroll et al., 2007; Domitrovich and Greenberg, 2000; Durlak and DuPre, 2008), dosage (how much of the original program has been delivered; Durlak and DuPre, 2008; Domitrovich and Greenberg, 2000), quality of implementation (how well the intervention is implemented in terms of approaching a theoretical ideal or the way in which the implementer interacts with participants; Berkel et al., 2011; Carroll et al., 2007; Dane and Schneider, 1998), and program differentiation (the extent to which a program's theory and practices can be distinguished from other programs' by identifying unique features of different components; Durlak and DuPre, 2008; Dusenbury et al., 2003). Some authors also considered participant responsiveness as a dimension of fidelity (how far participants respond to, are engaged in, and attentive to the activities and the content of the program; Berkel et al., 2011; Carroll et al, 2007; Dane and Schneider, 1998; Durlak and DuPre, 2008; Dusenbury et al., 2003). Adherence remains the sine qua non of implementation fidelity, being the most reported (Carroll et al., 2007; Sanetti et al., 2011), followed by dosage (Domitrovich and Greenberg, 2000).

While the dimensions of fidelity are considered the "verification" of integrity, the factors that influence implementation comprise the "promotion" of integrity (Dane and Schneider, 1998). These factors can either provide support or present barriers to the delivery of a program (Dariotis et al., 2008) and are key elements of the implementation system (Dusenbury et al., 2003). The social validity of the program, that is, the social importance, acceptability and satisfaction with the program goals, procedures, and outcomes (Merrell, 2010); pupil's behavior (Mihalic et al., 2008); teachers' (Mihalic et al., 2008) and school administrators' support (Dusenbury et al., 2003; Mihalic et al., 2008; Wanless et al., in press); and the general school culture (Dusenbury et al., 2003; Webster-Stratton and Herman, 2010) are important facilitators of high implementation fidelity. The program simplicity, the

availability of manuals and guidelines, staff training, staff supervision, ongoing technical support and rigorous program oversight (Dane and Schneider, 1998; Domitrovich and Greenberg, 2000; Dusenbury et al., 2003; Mihalic et al., 2008) are also important features.

A notable exception to the scarcity of studies which analyze not only the dimensions of fidelity, but also the factors promoting or inhibiting implementation fidelity, is the work of Mihalic and colleagues (2008). Their study examined the process evaluation of the implementation of a prevention program in 432 schools in 105 sites, and shed light into the factors which influence four dimensions of fidelity. They found that highly rated program characteristics and better student behavior were significantly related to a greater proportion of material taught by teachers (adherence); instructors who rated the program characteristics as ideal were more likely to teach all lessons (dosage); student behavior and use of interactive teaching techniques (quality of delivery) were positively related; and no variables were related to student participation (student responsiveness). More recently, Wanless and colleagues (in press) examined the association between school setting factors and observed implementation of a social and emotional learning intervention and found that teachers perception of principal buy-in to the intervention and individualized coaching influenced their degree of implementation and that intervention coaches' perspectives of principal buy-in were more related to implementation than principals' or teachers' perspectives.

Based on the literature, our aim was to determine to what extent was the "Slowly but Steadily" program implemented with fidelity; that is, implemented as designed by covering the majority of information and activities in each session (adherence), had all the sessions delivered (dosage) and successfully engaged the pupils (participant responsiveness). We hypothesized that some factors (pupil's behavior, teacher support and commitment and pupil's satisfaction) would predict implementation quality (Hypothesis one, see Figure 4).

More specifically, we expected that better pupil behavior and higher levels of teacher support, teacher commitment and pupil's satisfaction would predict higher levels of program adherence, dosage and pupil's engagement.

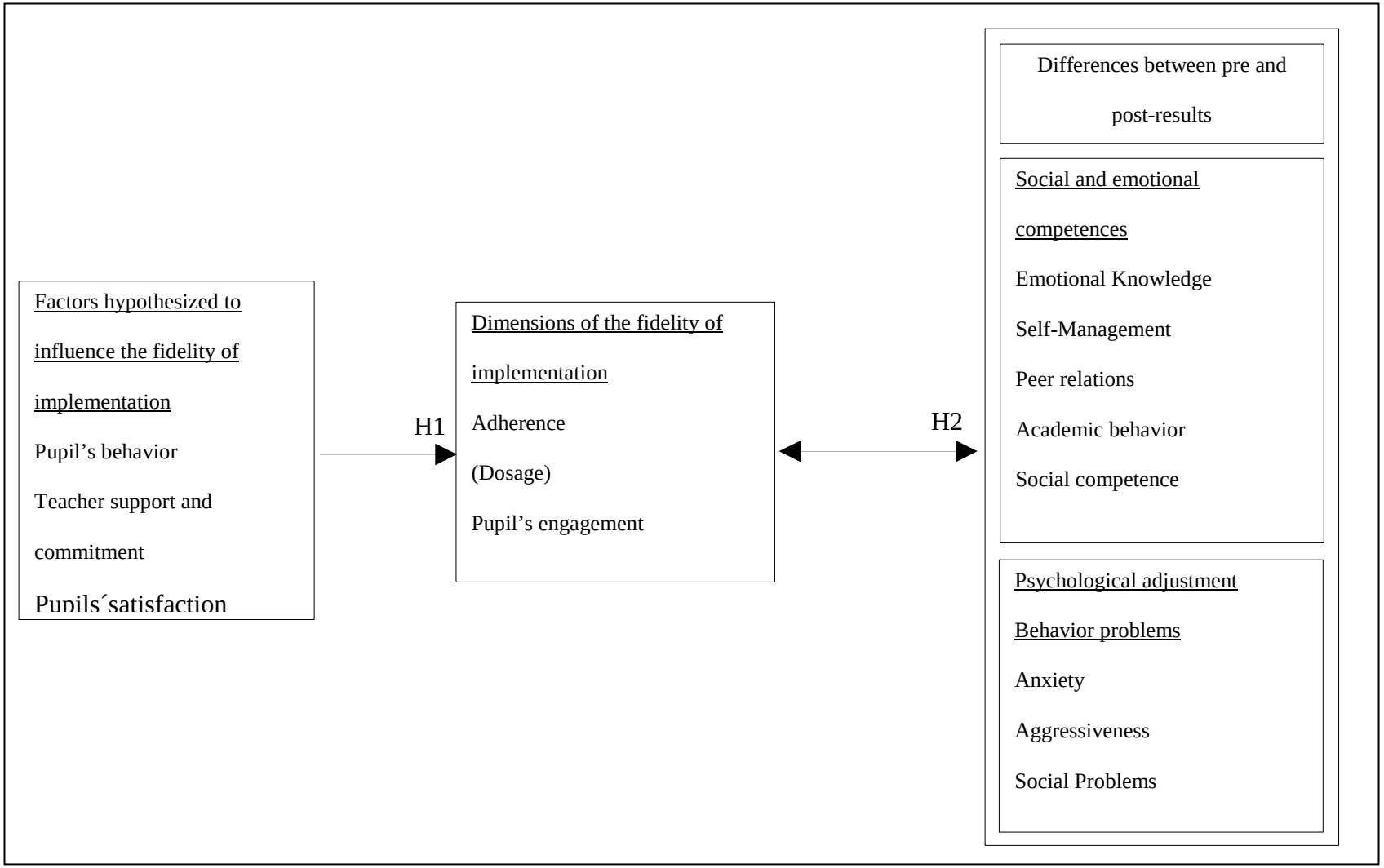

Figure 4. A model linking the hypothesis of the study

Impact of implementation fidelity on program results

Relating implementation quality to program outcomes, thus strengthening any conclusions made about the program's role in producing change, is critical for establishing the internal validity of a program (Benner et al., 2010; Bickman et al., 2009; Carroll et al., 2007; Domitrovich and Greenberg, 2000; Durlak and DuPre, 2008; Mihalic et al., 2008; Rimm-Kaufman and Chiu, 2007; Sanetti et al., 2011), that is, being confident about the relations found between variables. It is important to realize that program ambiguity (Bickman et al., 2009) or null-effects (Webster-Stratton and Herman, 2010) can be the result of inconsistencies in the delivery of program procedures (Dane and Schneider, 1998) and not of failures in the conceptual or methodological underpinnings of a particular intervention (Dusenbury et al., 2003). Implementation research may also establish the external validity of a program, by promoting the generalizability of the findings (Domitrovich and Greenberg, 2000; Durlak and DuPre, 2008).

Domitrovich and Greenberg (2000) found that only approximately one third of the programs linked variability in implementation indices to differences in program results, while Durlak and colleagues (2011) meta-analytic study revealed that the magnitude of mean effect sizes is at least two to three times higher when programs are carefully implemented and free from serious implementation problems (Durlak and DuPre, 2008). Evidence also suggests that the fidelity of the program plays a statistically significant role in improving social skills (Battistich et al, 2004; Mokrue et al., 2005), academic performance (Battistich et al, 2004) and the behavior of students with emotional disturbance (Benner et al., 2010) and in reducing problematic behaviors (Mokrue et al., 2005).

The overall picture is that of a significant positive effect of implementation fidelity on the program's outcomes. We expected that higher levels of adherence, dosage and pupil's

engagement (dimensions of implementation fidelity) would significantly associate with a greater pre-post increase of pupil's emotional knowledge, self-management, peer relations, academic behavior and social competence and a greater decrease of their levels of anxiety, aggressiveness and social problems (Hypothesis two, see also Figure 4).

Method

Participants

Data was collected as part of a longitudinal study using a cohort-sequential (quasi-experimental) design, focusing mainly on the short- (Raimundo et al., in press) and mid-term (Raimundo et al., manuscript submitted for publication) effects of the "Slowly but Steadily" program. In the present study, the quality of implementation fidelity and its role on the programs' impact was examined in the intervention group. Participants were 213 (120 boys, 93 girls) fourth-grade pupils (M_{age} = 9.26; SD = .68) from six Portuguese primary urban public schools (11 classes). The SES (socio-economic status) was somewhat heterogeneous, but predominantly middle class (66.5%). Schools varied slightly in ethnicity (minorities included African-Portuguese students, with some of Eastern Europe, Asian and Gypsy descent).

Procedure

During the first-year-pilot study, the social validity as well as the developmental and cultural suitability of the prototype program were analyzed. A training manual was prepared for the program beforehand, and daily records were kept to evaluate implementation quality. After that, some program content and activities were changed for the formal efficacy trial

during the second year of implementation. The program took place during school hours, as part of the curriculum. Weekly sessions were implemented by a school psychologist experienced in group intervention with 4th-grade children, aided by two undergraduate psychology students, in the teachers' presence.

Multi-method, multi-agent assessments were gathered at baseline and post-test. The measures were administered by the researcher to intervention children, control children (who received an origami program, with no SEL contents explicitly developed) and teachers during the second (after a first presentation session) and last sessions of the program, with a pre-post interval of eight months.

Demographic data was collected at pre-test. Weekly checklists and logs were completed by the provider detailing school/teacher information, day of delivery, adults who were present (including the teacher), goals achieved based on a checklist of content/type of the activities covered, degree of pupil engagement in the program activities, the pupils' behavior during each session, teachers' support and commitment to the program, barriers and assets to implementation, lessons learned and recommendations for the next session.

Implementation fidelity was also assessed at the end of the program by the teachers who assisted in implementing and by the pupils who received it as part of the outcome evaluation questionnaires. The survey included qualitative data from the teacher's perception of promoted competencies and psychological adjustment and quantitative data regarding the teacher's and pupil's satisfaction with the program.

Measures

Measures of the outcomes of the program

Some variables were analyzed through self-report (pupils) and hetero-report (teachers) questionnaires, before and shortly after program implementation. All scales were used in previous studies (Raimundo et al., in press; Raimundo et al., manuscript submitted for publication) and demonstrated to have acceptable to good reliability and validity in Portuguese samples. Higher scores on scales reflected higher levels of social-emotional competencies and program satisfaction and lower levels of psychological adjustment.

Emotional knowledge. Emotional knowledge was assessed through Assessment of Children's Emotions Scales - ACES (Schultz et al., 2004; Portuguese adaptation by Alves et al., 2008). This scale evaluates children's emotion attribution accuracy (EPA), and includes subscales concerning social behaviors (15 items, e.g. "Jeff is being nice to everybody"), social situations (15 items, e.g. "Mary's grandfather died"), and facial expressions (20 photographs in the Portuguese adaptation). In response to each item, children label the protagonist's feeling by choosing from among happy, sad, mad, scared, or no feeling. The EPA score reflected how often a child answered correctly to the 40 items for joy, sadness, anger, and fear across the three sections (Cronbach's $\alpha_{\text{pre-test}} = .58$, $\alpha_{\text{post-test}} = .56$ $\alpha_{\text{follow-up}} = .60$. The 10 "no feeling" items were not included in the EPA score.

Social competence. Social competence was evaluated by teachers through scale A of the School Social Behavior Scales – SSBS-2 (Merrell, 2002; Portuguese adaptation by Raimundo et al., 2012), which includes 32 items divided into three subscales, that describe adaptive or positive behaviors which are likely to lead to positive personal and social

outcomes. The 10 items of the *Self-management/compliance* subscale measure social skills related to self-restraint, cooperation and compliance with the demands of school rules and expectations (e.g. “Shows self-control”). The 14 items of the *Peer relations* subscale examine social skills or characteristics that are important in establishing positive relationships with and gaining social acceptance from peers (e.g. “Interacts with a wide variety of peers”). The eight items of the *Academic behavior* subscale relate to competent performance and engagement in academic tasks (e.g. “Completes school assignments on time”). All the items were rated using a five-point scale (1 = *never* to 5 = *frequently*).

Anxiety. The State-Trait Anxiety Inventory for Children - STAI-C (Spielberger, 1973; Portuguese adaptation by Matias et al., 2006) assessed the intensity of trait anxiety cognitions and symptoms by using only the second half of the full STAI-C measure (20 items). Items (e.g. “It is difficult for me to face my problems”) were scored by pupils, using a three-point scale (1 = *very little of the time* to 3 = *a lot of the time*).

Aggressiveness. Teachers evaluated aggressiveness through a six-item scale (Aggressive Behaviors Questionnaire, Raimundo and Marques-Pinto, 2007), which assesses the frequency of direct and indirect forms of aggressive behaviors. Items (e.g. “Provokes or threats peers”) were rated using a five-point scale (1 = *never* to 5 = *frequently*).

Social problems. Teachers filled out the 10 item social problems subscale of the Teachers Report Form – TRF (Achenbach, 1991; Portuguese adaptation by Fonseca et al., 1995) that assesses social, behavioral and emotional externalizing problems (e.g. “Doesn’t get along with other kids”) on a three-point scale (0 = *not true* to 2 = *frequently true*).

Measures of the dimensions of implementation fidelity.

Implementation quality of the program was systematically tracked and monitored using several measures developed for the present study. The three primary elements of implementation fidelity (dependent variables) tracked were adherence, dosage and pupil engagement. These variables were coded so that higher scores reflected more successful implementation fidelity.

Program adherence. A single item measured whether or not the provider adhered to the implementation plan in the manual ("How closely to the original plan do you feel that this session was delivered to this group?"). Responses ranged on a five-point scale from 1 (*very poorly*) to 5 (*very good*). A mean average was calculated for all sessions in each group.

Dosage. Program dosage was assessed by the provider through the calculation of the number of sessions implemented in each group.

Pupil´s engagement. Pupil´s engagement included pupil's participation, involvement, attention, enthusiasm and interest in the intervention. It was evaluated by the provider, after the implementation of each session in each intervention class, through a single item ("How engaged in this session do you consider the pupils from this class were?"), and the responses were rated using a five-point scale (1 = *very poorly engaged* to 5 = *very well engaged*).

Measures of the factors hypothesized to influence fidelity of implementatio

The independent variables included were pupil behavior, teacher support and commitment and pupil's satisfaction. Higher scores reflected higher levels of the factors hypothesized to influence fidelity of implementation.

Pupil's behavior. Pupil's behavior involves appropriate behavior and following the classroom and schools rules. It was measured by the provider, after the implementation of each session in each intervention class, through a single item ("How well do you consider that the pupils from this class complied with the rules during the session?") and the responses were rated using a five-point scale (1 = *complied very poorly* to 5 = *complied very well*).

Teacher support and commitment. Teacher support and commitment to the program was assessed by the provider, after each session in each intervention class, through a single item ("How supportive and committed to the program was the class teacher during this session?") and responses were rated using a five-point scale (1 = *very poorly* to 5 = *very well*).

Pupil's satisfaction. Pupil's satisfaction with the program was evaluated through a three-item (Cronbach's $\alpha = .77$) self-report questionnaire (e.g. "Did you like the program 'Slowly but Steadily'?"). Items were scored by using a five-point scale (1 = *not at all* to 5 = *very much*).

Statistical Analysis

Sampling constraints did not seriously counter-indicate the use of parametric statistical analysis. Results are primarily descriptive in nature with reference to means, standard deviations and range. Multiple linear regression analyses (*enter* method) were used to identify

the predictors of the implementation fidelity dimensions. Pearson bivariate correlations (two-tailed) were employed to analyze the role of fidelity of implementation on program outcomes. Two measures of effect size (ES) were used. For multiple regression analysis, ES was derived from adjusted R square (Adj.R^2). For correlations, ES was calculated using *p* values. Cohen (1988) suggests that adjusted R square values of .02, .13 and .26 and correlations values of .10, .30 and .50 should be interpreted as small, medium and large effects, respectively.

Results

Descriptive Analyses of Implementation Fidelity

Table 10 shows the means, standard deviations and range (minimum and maximum) of the independent and dependent variables of implementation fidelity. These results revealed very good levels of adherence, dosage and pupil's satisfaction with the program; good levels of pupil's engagement; and reasonable levels of pupil's behavior and teacher support and commitment to the program.

Table 10

Means, Standard Deviations and Range of Implementation Fidelity Variables

	Mean	SD	Minimum	Maximum
Adherence	4.56	.16	4.10	4.71
Dosage	21.12	.32	21	22
Pupil's Engagement	4.25	.32	3.90	5
Pupil's Behavior	3.67	.64	2.90	4.76
Teacher Support and Commitment	3.41	.39	3.10	4.24
Pupil's Satisfaction	4.50	.67	1	5

All intervention groups received 21 sessions, except group two (the biggest class), which received 22 sessions, due to one session that had been shortened and implemented in an inappropriate way and so needed to be re-implemented. For this reason, there was no variability in dosage and this variable could not be taken into account as a dependent variable of implementation fidelity in all subsequent analyses.

Predictors of Implementation Fidelity

To determine the predictors of implementation fidelity we performed two hierarchical, multiple regression analyses. In order to control the impact of gender (dummy variable) and SES, these variables were introduced in the first step of the regression. The independent

variables (pupil’s behavior, teacher’s support and commitment and pupil’s satisfaction) were introduced in the second step of the regression. Program adherence and pupil’s engagement were the dependent variables in the two regression analyses.

Table 11

Predictors of Implementation Adherence and Pupil's Engagement

Predictors /Independent Variables		Dependent Variables			
		Adherence		Pupil's Engagement	
		Model 1	Model 2	Model 1	Model 2
Gender	β	.103	.021	-.011	-.134
	t	1.527	.373	-.162	-2.601*
SES	β	-.191	-.203	.064	-.009
	t	-2.826**	-3.568***	.926	-.170
Pupil's behavior	β		.579		.603
	t		10.346***		11.666***
Teacher support and commitment	β		.033		.266
	t		.577		4.964***
Pupil's satisfaction	β		-.107		.066

	t	-1.945		1.290
$Adj.R^2$	.036	.365	-.005	.459
F	4.919**	37.360***	.435	61.055***
Df	2, 210	3, 207	2, 210	3, 207

Note. *p < .05, **p < .01, ***p < .001. Dummy variable coded 0 for male and 1 for female.

Results are presented in Table 11 and showed that pupil behavior (β = .579, $p < .001$), and SES (β = -.203, $p < .001$) were predictors of program adherence, with model 2 accounting for 36.5% of the variance, which is a large effect. Better pupil behavior was predictive of sessions being implemented more closely to the original plan. Higher levels of SES were also predictive of higher levels of program adherence.

Pupil's behavior (β = .603, $p < .001$), teacher's support and commitment (β = .266, $p < .001$) and gender (β = -.134, $p < .05$) were predictors of pupil's engagement, with model 2 explaining 45.6% of the variance, which is a large effect. Better pupil behavior and higher levels of teacher support and commitment were predictive of higher levels of pupil's engagement. Being male was also predictive of higher levels of pupil's engagement.

The Role of Implementation Fidelity on the Program's Impact

Eight variables were created, based on the difference between each pre and posttest outcome levels. A bivariate correlational analysis between these new variables and the dimensions of implementation fidelity (adherence and pupil's engagement) was performed, in order to determine whether higher levels of these two dimensions were significantly related

with greater improvements of pupil's emotional knowledge, self-management, peer relations, academic behavior and social competence and greater reductions of their anxiety, aggressiveness and social problems.

Table 12

Correlations Between Dimensions of Implementation Fidelity and Pre-Post Test Differences in Outcomes

	Adherence	Pupil's Engagement
Emotional knowledge	.075	.010
Self-management	.121	.072
Peer relations	.160*	.027
Academic behavior	.216**	.132
Social competence	.172*	.066
Anxiety	.120	.207**
Aggressiveness	-.205**	.028
Social problems	-.232**	-.131

Note. *p < .05, **p < .01 (2-tailed). N ranged from 195 to 213.

Results (Table 12) showed that adherence to the program was significantly associated with a higher increase of several social competencies and a greater decrease of externalizing problems. Higher levels of adherence were related with an increase of peer relations, academic behavior and social competence and a reduction of the levels of aggressiveness and social problems from pre to post-test. Adherence did not significantly correlate with pre-post test variation of emotional knowledge, self-management and anxiety. Pupil's engagement was only significantly associated to an increase of anxiety from pre to post-test. The effects encountered were all small.

Discussion

This article presents the process evaluation of a SEL Portuguese elementary school-based program, in a scenario of a reduced number of evidence-based interventions identified in Europe (Weare and Nind, 2011). The results revealed high levels of implementation fidelity of the program and also good-to-adequate levels of the factors promoting implementation fidelity. They partially support our hypothesis that some factors, namely pupil behavior and teacher support and commitment, promote the quality of implementation fidelity. Furthermore, they also partially support our hypothesis of the association between stronger program fidelity and stronger program outcomes, especially between adherence and social competencies, and adherence and externalizing problems.

First, there was a high level of structure and consistency in program delivery. Results show very good levels of program adherence, with a mean level of 4.56 out of 5 and also of dosage, with all the planned sessions implemented in all groups. Moreover, pupils were well engaged with the program, registering a mean level of 4.25 out of 5. The integration of the

program into the school schedule (Mihalic et al., 2008) and the implementation of the program by a school psychologist with experience in group intervention with 4th-grade children may have helped to ensure fidelity, taking into account the important role of the implementer's characteristics (Dariotis et al., 2008) and sense of competence or mastery (Turner et al., 2011). These results constitute an important step before moving on to effectiveness studies and broad dissemination (Flay et al., 2005).

Second, few studies to date have relied on quantitative analysis to identify factors related to implementation fidelity (Mihalic et al., 2008). In the present study, better pupil behavior was predictive of sessions being implemented more closely to the original plan and of pupil's engagement. It seems that spending less time reprimanding and striving to maintain control of a class leads to more time available to implement the program's sessions and to promote pupil's engagement with program activities (Mihalic et al., 2008). Furthermore, higher levels of teacher support and commitment were predictive of higher levels of pupil's engagement. In the presence of a strong and proactive support from teachers during the sessions, pupils may be more motivated to be engaged. Pupil's satisfaction did not act as a predictor of implementation fidelity, thus not confirming that the social validity of the program is an important facilitator of high implementation fidelity (Merrell, 2010).

Third, adherence to the program was significantly associated with program outcomes, supporting the linkage found by other authors between variability in implementation indices and differences in program outcomes (Domitrovich and Greenberg, 2000; Ferrer-Wreder et al., 2010), especially regarding social competence (Battistich et al, 2004; Mokrue et al., 2005) and problem behaviors (Mokrue et al., 2005). Higher levels of pupil engagement were associated with raised anxiety levels, which partially contradicts our second hypothesis. This may be due to the increased daily pressure that children face in their lives to succeed in

academic and social areas (Denham and Brown, 2010), which lead them to engage more in activities, but also to feel more anxious as a consequence. The option for assessing implementation in a continuous fashion (Rimm-Kaufman and Chiu, 2007) in order to obtain more powerful analysis (Dane and Schneider, 1998) – instead of using an arbitrary categorization of subjects by creating groups of providers who differ in their level of implementation (Mokrue et al., 2005), which in turn could result in a substantial loss of information (Dane and Schneider, 1998) – was a methodological strength of the present study.

Limitations and Recommendations

Three limitations require discussion. First, the implementation of the program did not occur under typical "real world" conditions. Although it has been conducted in local practice, it was implemented within a research context. For this reason, it was not possible to analyze the association between dosage and the pre-post differences of the program outcomes since all the sessions were implemented in every class. We need to learn more about what will reinforce the adoption of, adherence to, and sustainability (Webster-Stratton and Herman, 2010) of "Slowly but Steadily" and to advance knowledge on best practices for replicating, maintaining, and diffusing the program, especially in complex "real world" systems (Domitrovich and Greenberg, 2000). Strenuous attempts should also be made to ensure staff training, supervision and ongoing technical support (Dane and Schneider, 1998; Domitrovich and Greenberg, 2000; Dusenbury et al., 2003; Mihalic et al., 2008).

Secondly, the implementation evaluation was conducted by the program implementer, which could lead to what Bickman and colleagues (2009) called an "allegiance effect", with a potential threat to internal validity (Rimm-Kaufman and Chiu, 2007). Some authors (Domitrovich and Greenberg, 2000) consider that information about program's

implementation fidelity should be collected, ideally, using ratings by an independent unbiased observer, a more direct and objective way of measuring implementation fidelity (Bickman et al., 2009; Durlak and DuPre, 2008), but which also has a higher (sometimes unbearable) cost (Bickman et al., 2009).

Thirdly, analyses were conducted at the individual pupil level even though some variables were assessed at the individual level (program outcomes and pupil satisfaction) and others at the classroom level (adherence, dosage, pupil engagement, pupil behavior and teacher support and commitment), and the unit of randomization was the classroom. Unfortunately, the small number of classrooms did not provide sufficient statistical power to use a multi-level model in the current study. It is possible that this could bias the statistical tests used to identify process evaluation results.

Future studies should focus on analyzing the level of implementation (adherence or dosage) necessary to lead to significantly better outcomes; on manipulating conditions potentially affecting implementation (Durlak and DuPre, 2008); and on studying the trajectory of multiple dimensions of implementation of the program over time (Berkel et al., 2011; Durlak and DuPre, 2008).

Implementation information provides a source of ongoing feedback that is useful to understand the internal dynamics and operations of an intervention program, its strengths and weaknesses, thus allowing for continuous quality improvement and continued refinements of interventions (Domitrovich and Greenberg, 2000; Durlak and DuPre, 2008). Given the inevitability of the unpredictable, it is wise to learn from these events by including a careful study of implementation in evaluating programs (Bickman et al., 2009). Only then can we be sure that our time and efforts have not been wasted (Webster-Stratton and Herman, 2010).

CAPITULO III

Considerações Finais

Considerações Finais

O projeto que culminou na presente dissertação foi delineado com o objetivo de avaliar a eficácia, a curto e médio prazo, da implementação do programa universal de promoção de competências sócioemocionais "Devagar se vai ao longe" a crianças do 4º ano de escolaridade, assim como a qualidade da sua implementação em contexto escolar. Neste âmbito foram realizados três estudos principais, dois deles de natureza longitudinal, os quais incluíram metodologias de recolha e análise de dados diversificadas, com inclusão de um grupo de controlo. Paralelamente realizou-se um estudo prévio com o intuito de adaptar uma escala de competência social para a população Portuguesa.

Os resultados relativos a estes estudos foram apresentados no capítulo anterior de forma independente, pretendendo-se no presente capítulo efetuar uma síntese integradora dos mesmos. É ainda nosso objetivo refletir em torno dos principais contributos para a investigação científica e limitações do presente trabalho, assim como o modo como essas limitações poderão ser ultrapassadas, com algumas indicações para estudos futuros. Por último, mas não menos importante, tendo em conta que o presente trabalho se alicerça na conceção e implementação de um programa de intervenção, são apresentados os principais contributos e implicações para a prática educativa em contexto escolar.

Síntese Integradora dos Resultados

Os resultados dos estudos empíricos longitudinais que integram o presente trabalho evidenciaram a eficácia da implementação do programa "Devagar se vai ao longe", durante um ano letivo, na promoção de competências sócioemocionais e do desempenho académico, assim como na redução de comportamentos externalizantes, nas crianças pertencentes ao

grupo de intervenção, por comparação com as do grupo de controlo. Os ganhos obtidos com a implementação do programa nestas competências foram independentes do seu nível socioeconómico de pertença. O programa não foi, no entanto, eficaz na melhoria dos comportamentos internalizantes.

Foi possível verificar resultados positivos generalizados no grupo de intervenção imediatamente após a implementação do programa os quais se situaram, especificamente, na relação com os pares e na competência social. No entanto, a eficácia do mesmo foi moderada por algumas características das crianças, nomeadamente o nível *a priori* das competências e o género, traduzindo-se esta moderação em ganhos adicionais para alguns participantes, obtidos com a implementação do programa a curto prazo. Deste modo, as crianças do grupo de intervenção que apresentavam níveis medianos de autocontrolo prévios à implementação revelaram melhorias significativas nesta competência por comparação com as crianças do grupo de controlo; e os rapazes do grupo de intervenção apresentaram também ganhos significativos no autocontrolo, na agressividade e nos problemas sociais, comparativamente com os rapazes do grupo de controlo.

A expetativa de se registarem ganhos a médio prazo ("efeitos adormecidos") relativamente ao conhecimento emocional e à ansiedade no estudo de *follow-up* não se verificou, uma vez que tanto o grupo de intervenção como o grupo de controlo melhoraram os seus níveis de conhecimento emocional e reduziram a ansiedade, 10 meses após a implementação do programa. Estas variáveis não tinham sofrido melhorias no grupo de intervenção, por comparação com o grupo de controlo, também no curto prazo, pelo que a evolução se poderá atribuir, provavelmente, mais a aspetos desenvolvimentistas do que à implementação do programa. Se a ausência de impacto deste programa universal nos problemas internalizantes (ansiedade) é mais expetável e empiricamente suportado na

literatura (Diekstra, 2008; Neil & Christensen, 2007), o mesmo já não sucede com o conhecimento emocional, uma vez que vários estudos realizados no campo das ciências sociais em geral, e da prevenção e intervenção em particular, têm evidenciado um maior impacto das intervenções sobre a melhoria de conhecimentos do que sobre a mudança de comportamentos (Durlak, 2009; Durlak & Wells, 1997; Wilson & Lipsey, 2007).

O impacto positivo do programa não se ficou, contudo, pelos resultados imediatos; fez-se também sentir a médio prazo, com as crianças do grupo de intervenção a apresentarem ganhos no desempenho académico 10 meses após a implementação do mesmo, comparativamente com as crianças do grupo de controlo. Adicionalmente, a implementação do programa amplificou o impacto positivo do conhecimento emocional no desempenho académico, mesmo após as variáveis sociodemográficas género e estatuto socioeconómico terem sido controladas.

Para compreendermos melhor o significado dos resultados relativos à eficácia do programa é necessário analisá-los à luz do modo como decorreu a implementação da intervenção, isto é, a qualidade da sua implementação. Os resultados relativos à avaliação de processo revelaram uma elevada fidelidade de implementação do programa com níveis bastante elevados de implementação da intervenção tal como planeada (adesão), assim como do número de sessões implementadas (dosagem) e níveis elevados de envolvimento por parte dos alunos nas atividades do programa (envolvimento dos alunos).

Tendo em consideração a elevada fidelidade, em média, da implementação do programa é possível inferir que os resultados obtidos relativamente à sua eficácia se devem mais à forma como o programa foi delineado do que ao modo como o mesmo foi implementado e, como tal, estarão muito próximo do seu real impacto. Contudo, mesmo com a obtenção de elevados níveis de fidelidade de implementação do programa, como os

encontrados neste trabalho, verificou-se uma associação positiva entre níveis mais elevados de fidelidade da implementação, nomeadamente de adesão (intervenções implementadas tal como planeado) e uma melhoria mais significativa de algumas competências sócioemocionais e dos problemas externalizantes no grupo de intervenção, o que vem realçar ainda mais a importância de se atender aos aspetos relacionados com a avaliação da qualidade das intervenções.

Paralelamente verificou-se que alguns fatores, tais como o comportamento dos alunos ao longo das sessões e o grau de apoio e compromisso dos professores relativamente à implementação, os quais apresentaram níveis médios razoáveis no nosso estudo, têm também uma influência importante, no sentido de predizerem a qualidade da fidelidade da implementação. O bom comportamento dos alunos produziu efeitos positivos nos níveis de adesão e no envolvimento/compromisso dos alunos, sendo este também positivamente predito pelo apoio e compromisso dos professores.

Alguns outros fatores adicionais não serão de somenos importância, nomeadamente os níveis muito elevados de satisfação com o programa manifestados pelos alunos e relativamente elevados por parte dos professores alcançados no final da intervenção. Apesar de a satisfação não se ter revelado um preditor significativo de nenhuma variável relacionada com a fidelidade de implementação do programa, os elevados níveis registados confirmam a validade social do mesmo, no sentido da intervenção ter uma aceitação muito elevada por parte do público-alvo que a considera como algo que é útil, que vale a pena e, como tal, é recomendável.

Contributos para a Investigação

O principal contributo do presente trabalho para a investigação científica foi o de possibilitar o conhecimento dos resultados da avaliação da eficácia, a curto e médio prazo, e da qualidade de implementação de um programa universal de promoção de competências sócioemocionais português, "Devagar se vai ao Longe", sustentado num sólido quadro teórico de referência, as SEL (CASEL, 2003), e cuidadosamente planeado e implementado do ponto de vista metodológico. Recorreu-se a uma metodologia de recolha de dados com múltiplos informantes e métodos, procurando-se, com base na literatura, utilizar os instrumentos mais adequados tendo em conta, não só as variáveis a avaliar, como também as suas qualidades psicométricas em estudos prévios na população portuguesa. Este contributo é tão mais importante se tivermos em conta o cenário de escassez de estudos semelhantes baseados em evidência científica oriundos da Europa (Weare & Nind, 2011) e a ausência de estudos com estas caraterísticas no panorama nacional.

Em termos de evidência empírica relativamente ao impacto dos programas SEL, esta investigação constitui também uma mais-valia ao contribuir com uma avaliação da eficácia a médio prazo, a qual inclui um período de *follow-up* superior a seis meses. Este tipo de avaliação foi apenas realizado em cerca de 15% das investigações que fizeram parte do estudo de meta-análise de Durlak, Weissberg, Dyminicki, Taylor e Schellinger (2011) o qual integra programas SEL universais realizados em todo o mundo.

Paralelamente, este trabalho é um contributo adicional a juntar aos poucos estudos que apresentam dados relativos ao papel moderador das caraterísticas individuais dos alunos no impacto das intervenções SEL, nomeadamente os seus níveis iniciais de competências e de problemas de comportamento, o género e o estatuto socioeconómico. Este contributo reveste-se de particular importância tendo em conta que os poucos estudos que se debruçaram sobre

este aspeto em concreto têm vindo a apresentar resultados contraditórios (Conduct Problems Prevention Research Group [CPPRG], 2010; Durlak et al., 2011; Greenberg, Domitrovich, & Bumbarger, 2001).

A presente investigação também constitui uma mais-valia para o conhecimento relativo à fidelidade da implementação de um programa SEL, em particular, os fatores que a promovem ou que a inibem, bem como a sua influência no impacto de uma intervenção SEL. Uma vez mais, esta contribuição emerge num contexto de escassez de estudos sobre os aspetos da qualidade da implementação e sua relação com os resultados do programa (Domitrovich & Greenberg, 2000; Durlak & DuPre, 2008; Sanetti, Gritter, & Dobey, 2011).

Os aspetos atrás mencionados deixam transparecer o relevo deste trabalho para a investigação científica. Contudo, o contributo mais relevante desta investigação centra-se no cuidado metodológico em controlar os possíveis efeitos das características pessoais e relacionais da implementadora no impacto do programa "Devagar se vai ao Longe". Para tal, certificou-se que fosse a mesma psicóloga a implementar o programa em todos as turmas que fizeram parte do grupo de intervenção. Além disso, a mesma psicóloga implementou também um programa não SEL em todas as turmas que integraram o grupo de controlo, de modo a contrabalançar um eventual efeito placebo. Tanto quanto é do nosso conhecimento, foi a primeira vez que esta metodologia foi aplicada na implementação de intervenções SEL.

Por último, saliente-se ainda a tradução e adaptação de uma escala de avaliação da competência social para a população escolar portuguesa, do 1º ao 12º ano de escolaridade, o *School Social Behavior Scales* – 2 (SSBS-2; Merrell, 2002), tendo-se utilizado duas amostras para esse fim. O modelo final encontrado na primeira amostra foi replicado numa segunda amostra através de um processo de validação cruzada, com recurso a uma análise fatorial multigrupo, contribuindo assim para uma maior confiança relativamente à validação deste

instrumento de avaliação. Pretende-se que esta ferramenta seja útil futuramente, quer em investigações, quer na avaliação da competência social das crianças e adolescentes em contexto clínico e educacional, quer ainda na avaliação de intervenções educativas destinadas a melhorar esta competência, uma vez que o instrumento revelou boas qualidades psicométricas.

Limitações do Trabalho

No capítulo anterior, e de forma mais sistematizada na discussão de cada um dos estudos apresentados, foram referidas algumas limitações específicas inerentes aos mesmos. Referem-se, em seguida, as principais limitações deste trabalho, na sua generalidade, de modo a possibilitar uma interpretação e generalização mais fidedigna dos resultados encontrados. Essas limitações são de ordem metodológica e ligadas à construção e implementação do programa.

Uma limitação ligada à construção do "Devagar se vai ao Longe" é o facto de ser um programa de média duração, o qual foi implementado apenas ao longo de um ano letivo. Adicionalmente, o facto de ter sido implementado no final do 1º ciclo (4º ano de escolaridade) não permitiu a realização de sessões de *follow-up* no 5º ano, destinadas a reforçar as competências adquiridas ao longo do programa. A transição escolar trouxe como consequência uma reorganização das turmas nas escolas de 2º e 3º ciclos do ensino básico, conduzindo a uma contaminação inevitável entre os grupos de intervenção e de controlo.

As restantes limitações desta investigação são de natureza metodológica. Em primeiro lugar, tratou-se de um conjunto de estudos quasi-experimentais, na medida em que, por motivos práticos e éticos, não foi possível distribuir as turmas, de forma completamente aleatória, pelos grupos de intervenção e de controlo. Duas das seis escolas não aceitaram que

algumas turmas beneficiassem do programa em detrimento de outras e uma terceira escola apenas tinha uma turma de 4º ano. Não obstante, procurou-se obviar esta limitação selecionando as turmas de controlo, de forma aleatória, nas restantes três escolas.

A segunda limitação de natureza metodológica prendeu-se com o facto de a maioria das análises estatísticas terem sido efetuadas considerando o nível individual (aluno), enquanto outras tiveram em conta o nível turma. A distribuição pelas condições experimentais (intervenção vs. controlo) foi feita a partir da unidade turma, isto é, foram as turmas que foram distribuídas por cada condição experimental e não cada aluno por si só. O número de participantes nesta investigação foi considerável (318), contudo esse número é menos impressionante se tivermos em conta não os alunos, mas sim as turmas participantes. Por este motivo, não foi possível utilizar outro tipo de análises estatísticas mais adequadas e que resultassem numa menor probabilidade de enviesamento dos resultados, como sendo as análises multinível.

A terceira limitação metodológica relaciona-se com a elevada perda de sujeitos no estudo de follow-up, 6 meses após a implementação do programa estar concluída. Apesar de apenas haver diferença entre o grupo do *follow-up* e o que abandonou o estudo nos níveis de conhecimento emocional do pós-teste e no estatuto socioeconómico, a percentagem de sujeitos retidos, bastante abaixo da ideal, poderá colocar em causa a validade externa dos resultados encontrados relativamente à eficácia do programa a médio prazo.

Indicações para Estudos Futuros

Nesta secção deixam-se algumas sugestões para estudos futuros. Começaremos por fazer algumas reflexões em relação à construção, implementação e avaliação de programas SEL em geral e concluiremos com o programa “Devagar se vai ao Longe” em particular.

Programas SEL

Em primeiro lugar tecemos algumas considerações sobre a construção dos programas SEL. Neste sentido, será importante considerar a utilidade dos modelos integrados, os quais partilham um quadro teórico, mantêm a especificidade das estratégias de cada modelo de intervenção e fundem as que são comuns, potenciando o impacto da intervenção de uma forma eficiente em diferentes contextos, o que ajuda a manter a sustentabilidade dos programas e evita a necessidade de intervenções mais intensivas e onerosas (Domitrovich et al., 2010). A integração poderá ser feita a diversos níveis, entre as quais se destaca a integração de intervenções que incluam a prevenção e o tratamento, isto é, intervenções universais e intervenções seletivas e indicadas (Greenberg, 2010; Weare & Nind, 2011). Saliente-se como exemplo a implementação de um programa SEL universal, o *Fast Track PATHS* (*Promoting Alternative Thinking Strategies*) inserido no modelo de prevenção seletiva *Fast Track* (CPPRG, 2011). Por outro lado, apesar de os estudos serem escassos (Flay, Graumlich, Segawa, Burns, & Holliday, 2004), a expectativa de integração de intervenções com múltiplas componentes (ex.: em sala de aula, na escola, nas famílias) é a de que possa permitir alcançar melhores resultados, baseado no facto do seu foco mais alargado em termos ecológicos poder potenciar o desenvolvimento das novas competências (Tolan, Guerra, & Kendall, 1995). Esta integração vai bastante além do encorajamento do envolvimento proactivo da família e da comunidade em programas SEL aconselhado por alguns autores (Cooke et al., 2007; Domitrovich, Cortes, & Greenberg, 2007; Merrell & Gueldner, 2010). Outro exemplo de integração possível diz respeito à combinação de programas SEL e programas centrados na gestão das salas de aula, uma vez que será pouco provável que as crianças desenvolvam competências sócioemocionais em turmas com uma ineficiente gestão de comportamentos em sala de aula (Domitrovich et al, 2010; Rimm-Kaufman & Chiu, 2007).

Por último, Jones, Brown, Hoglund e Aber (2010) reportaram o desenvolvimento de uma intervenção universal relativamente inovadora que integra a aprendizagem sócioemocional e o desenvolvimento da literacia (programa *4Rs - Reading, Writing, Respect, and Resolution*), combinando programas SEL e o currículo académico, em contexto escolar.

Adicionalmente, refira-se que as escolas estão cada vez mais interessadas em ter programas adequados a jovens que constituem um desafio para os sistemas educativos vigentes, como sejam jovens em risco, com autismo ou síndrome de Asperger, com défices cognitivos, com dificuldades de aprendizagem, com perturbações emocionais e comportamentais graves, alunos em cursos de formação alternativa, jovens em centros de acolhimento ou cuja cultura e/ou a língua materna não é a mesma do país onde residem (Merrell, 2010; Merrell & Gueldner, 2010; Merrell, Juskelis, Tran, & Buchanan, 2008). Para adequar os programas SEL a estes jovens, de modo a satisfazer as suas necessidades, preferências e valores bem como das comunidades nos quais estão inseridos, é necessário que os mesmos sofram adaptações (Domitrovich & Greenberg, 2000; Durlak & DuPre, 2008; Dusenbury, Brannigan, Falco, & Hansen, 2003; Merrell & Gueldner, 2010). Nesse sentido, é importante desenvolver estratégias para melhorar a flexibilidade dos programas e para os adaptar à ecologia local (Romasz, Kantor, & Elias, 2004) sem comprometer os seus princípios básicos. No entanto, tem sido questionada a adequabilidade de fazer adaptações a protocolos de tratamento estandardizado que possam pôr em risco a fidelidade e integridade dos programas já existentes (Dusenbury et al., 2003; Merrell & Gueldner, 2010) e, consequentemente, a sua eficácia (Domitrovich & Greenberg, 2000). Uma pergunta que legitimamente se coloca perante um cenário de adaptação de programas é: quão verdadeiramente generalizáveis serão os resultados desses programas?

Ainda no que diz respeito à construção de programas SEL a literatura parece convergir para um impacto mais positivo dos programas com uma maior intensidade e duração, ou seja, que se prolonguem por mais do que um ano letivo (CASEL, 2012; Cooke et al., 2007; Domitrovich et al., 2007; Merrell & Gueldner, 2010; Weare & Nind, 2011). Contudo, alguns autores chamam a atenção para a necessidade da teoria e da prática se aliarem na identificação de modelos de prevenção que integrem estratégias eficazes, com um bom rácio custo-benefício (Domitrovich et al., 2010), salientando a importância de se determinar o impacto económico da implementação de um programa (Bradshaw, Zmuda, Kellam, & Ialongo, 2009; Durlak et al., 2011). Implementar programas de elevada eficácia os quais requerem recursos consideráveis em termos de tempo, dinheiro e formação de pouco serve (Gottfredson & Gottfredson, 2002; Merrell, 2010). Deste modo, alguns autores consideram que a aposta deverá ser feita em intervenções breves, fáceis de utilizar, de baixo custo (Jones et al., 2010; Merrell, 2010; Merrell & Buchanan, 2006; Merrell et al., 2008), que exijam pouca formação, que apresentem poucas barreiras à sua adoção, implementação e manutenção e que, simultaneamente apresentem uma eficácia, pelo menos, satisfatória (Merrell, 2010). Perante estas indicações, qual será a duração ideal de um programa SEL? Que fatores contribuem para a moderação da duração ideal destes programas? São questões que continuam em aberto neste campo de estudo.

Gostaríamos também de refletir acerca da implementação de programas SEL. Os dados recolhidos na literatura em relação ao melhor formato de implementação dos programas SEL divergem. Será mais eficaz utilizar uma estratégia de adição ou infusão no currículo? Quem será mais eficaz a implementar os currículos SEL, os professores, os psicólogos, outros técnicos, ou ainda os investigadores? Há quem defenda que a infusão permite uma maior sustentabilidade dos programas a longo prazo (Schaps, 2010) e quem argumente que a adoção

dessa estratégia apresenta um risco maior de um programa SEL vir a ser ignorado ou abandonado, em detrimento de matérias mais académicas (Merrell & Gueldner, 2010). Os professores parecem ser tão eficazes a implementar os programas, como os psicólogos ou outros técnicos psicossociais, embora existam alguns indicadores de que os primeiros sejam menos eficazes a implementar programas com uma forte componente interativa (Greenberg et al., 2003), possivelmente por se sentirem desconfortáveis com algumas metodologias utilizadas nestes programas, como por exemplo, os *roleplays* (Tobler et al., 2000). Durlak e colaboradores (2011) encontraram resultados significativamente superiores quando as intervenções em contexto de sala de aula foram implementadas pelos professores, comparativamente às implementações feitas por investigadores ou outro pessoal não pertencente à comunidade escolar. E quando os programas SEL são implementados por psicólogos escolares que fazem parte da comunidade escolar? Desconhecem-se estudos na literatura que tenham analisado este parâmetro, comparando diretamente a implementação de programas SEL feita por psicólogos escolares e por professores.

Por último, no que diz respeito à avaliação de intervenções SEL, refira-se uma ausência notável de instrumentos de avaliação precisos e validados, desenhados exclusivamente para avaliar competências sócioemocionais, sendo a sua maioria orientada para a avaliação de sintomas problemáticos ou psicopatológicos (Merrell, 2010; Merrell & Gueldner, 2010; Merrell et al., 2008; Wigelsworth, Humphrey, Kalambouka, & Lendrum, 2010). São necessárias mais pesquisas que conduzam a um corpo teórico que permita desenvolver uma abordagem estandardizada de medição das competências sócioemocionais (Durlak et al., 2011), adequada aos diferentes estádios do desenvolvimento (Denham, Wyatt, Bassett, Echeverria, & Knox, 2009).

Programa "Devagar se vai ao Longe"

No que diz respeito à construção do programa em si mesmo seria conveniente considerar a possibilidade de alargá-lo aos restantes anos de escolaridade do 1º ciclo do ensino básico e, eventualmente, ao último ano do pré-escolar e analisar se este alargamento se traduziria numa melhoria da eficácia do programa nas competências sócioemocionais, dos problemas de comportamento e no rendimento académico. Deveria ainda ser contemplada uma análise que estudasse um eventual efeito em "cascata" dos resultados positivos do programa (Jones et al., 2010; Linares et al., 2005). Previamente a este eventual alargamento a outros anos de escolaridade seria importante contemplar um painel de especialistas na área que possa dar o seu parecer relativamente à construção do programa alargado, com vista à sua validação. De igual modo, sugere-se uma análise cuidada sobre a possibilidade de reestruturar o "Devagar se vai ao Longe", no sentido das raparigas poderem vir a beneficiar mais com o mesmo.

Em termos metodológicos será de ter em conta, em investigações futuras com este programa, a realização de ensaios com distribuição aleatória das turmas que farão parte dos grupos de intervenção e de controlo e a utilização como unidade de distribuição por cada condição experimental a escola em substituição da turma ou do indivíduo. O número de participantes deverá idealmente ser aumentado e com proveniência de escolas de zonas rurais e urbanas, de modo a permitir uma análise mais aprofundada da influência das características dos alunos na eficácia do programa. O aumento do número de turmas/escolas em cada condição experimental deverá ser tal que possibilite uma potência estatística suficientemente razoável que permita a utilização de modelos multi-nível de análise de dados.

Considera-se também importante, em futuras implementações do programa, analisar a sua eficácia com níveis de dosagem diferenciados para conhecermos melhor qual a

quantidade mínima de sessões/ atividades do “Devagar se vai ao Longe” que é necessário implementar para que o mesmo produza resultados significativos. Tendo em conta que algumas atividades preventivas ou de intervenção a nível das competências sócioemocionais poderão também ocorrer no grupo de controlo de forma menos explícita, considera-se pertinente analisar de forma mais pormenorizada as atividades de que as turmas pertencentes a esse grupo beneficiam.

Analisar se os resultados a nível da eficácia do programa se mantêm semelhantes com a implementação do mesmo por parte de outros aplicadores é também um critério importante a ter em conta. Nestes estudos iniciais tal não foi possível de realizar, uma vez que se procurou avaliar a eficácia do programa, controlando a variável características do implementador. Por outro lado, numa primeira fase, as intervenções são melhor implementadas por técnicos especializados que consigam “arrancar” com esses programas no terreno (Weare & Nind, 2011). Futuramente poderá ser igualmente importante compreender qual o papel das características das escolas na eficácia da intervenção, além das características dos alunos já analisadas. Esta análise patente em alguns estudos (CPPRG, 2010) só será possível de realizar com um alargamento da amostra e do número de escolas envolvidas.

Paralelamente é necessário conhecer um pouco melhor o que poderá proporcionar a adoção e disseminação do programa, isto é, a sua replicação e manutenção no contexto nacional. Nesse sentido será também de considerar a possibilidade de realizar estudos futuros com um *design* experimental, com duas ou mais replicações, desenvolvidas por equipas de investigação independentes (Biglan, Mrazek, Carnine, & Flay, 2003). Estes estudos contribuiriam para a avaliação da eficiência e disseminação do “Devagar se vai ao Longe”, de modo a corresponder às exigências dos *standards* de certificação de evidência científica dos programas preventivos (Flay et al., 2005).

A nível das metodologias de avaliação utilizadas para analisar a qualidade da implementação do programa "Devagar se vai ao Longe" será de ter em conta a inclusão de observações feitas por observadores independentes em algumas sessões do programa. Será pertinente considerar também a inserção dos pais na avaliação da eficácia do programa, a juntar aos alunos e aos professores, de modo a permitir uma triangulação da avaliação (Wigelsworth et al., 2010).

Implicações Práticas

Por último sugerem-se vários aspetos que deverão ser tidos em consideração por todos os investigadores, psicólogos, educadores e responsáveis por políticas educativas que se interessem pela promoção das competências sócioemocionais.

A juntar aos contributos atrás mencionados para o avanço da investigação científica neste campo de estudo, considera-se que o contributo maior da presente investigação foi o de disponibilizar para todos quantos trabalham "no terreno" um programa de intervenção português que evidenciou a sua eficácia na melhoria das competências sócioemocionais, do rendimento académico e na redução dos comportamentos externalizantes em crianças. Este contributo é eminentemente prático e realça a relevância social deste trabalho. O próximo passo importante a dar para a concretização última deste objetivo será a edição do programa, após ver comprovada a sua eficácia.

Existe uma *décalage* entre a investigação e a prática no que diz respeito à prevenção e promoção de competências em contexto escolar (Greenberg, 2010; Weisz, Sandler, Durlak, & Anton, 2005). Em Portugal e no resto da Europa, este fenómeno deriva da pouca articulação existente entre investigadores e psicólogos e/ou educadores, da ausência de uma cultura de publicação de resultados por parte dos profissionais de psicologia e de uma escassa utilização

de uma metodologia de avaliação da eficácia dos programas e uma consequente disseminação dos resultados gerados com a sua implementação (Weare & Nind, 2011). O estabelecimento de uma ponte mais estreita entre investigadores, educadores e agentes políticos (Denham & Brown, 2010) deverá por isso ser uma preocupação. O papel da investigação é o de ajudar educadores, psicólogos e agentes políticos a terem em conta estudos imparciais que apoiam as intervenções eficazes, por trás do *marketing* associado aos programas existentes no mercado (Haslam, 2010). O presente trabalho aspira a ajudar a colmatar essa lacuna em Portugal.

A identificação de programas universais de qualidade com uma eficácia promissora continua a ser crucial (Linares et al., 2005), assim como orientar as escolas para que façam escolhas informadas sobre a adoção, implementação e avaliação de programas SEL (Wandersman & Florin, 2003), especialmente centrados em evidências que apoiem esses programas e os contextos nos quais eles são eficazes (Humphrey, Lendrum, & Wigelsworth, 2010). Adicionalmente, o estabelecimento de uma agenda própria, sólida e consistente, de caráter científico que impeça a política do setor de andar sempre (atrasada e intermitente) atrás dos problemas deverá ser uma prioridade para evitar a falta de continuidade e sustentabilidade das ações (Matos et al., 2012).

Para que este cenário seja uma realidade no nosso país é necessário criar uma entidade, ou delegar numa já existente, a missão de regular, com isenção, o setor. Nesse sentido, um contributo importante seria a construção de um guia que servisse como um recurso valioso para os líderes educativos e para as equipas técnicas, em especial os serviços de psicologia escolar, que aspirem a implementar programas que promovam o desenvolvimento sócioemocional e o desempenho académico baseados em evidência científica. Este guia seria também útil a todos os construtores de programas SEL que

procuram melhorar os seus programas, aos investigadores que os avaliam e aos responsáveis pelas políticas educativas que querem encorajar o uso de boas práticas educativas.

Uma outra implicação prática deste trabalho que merece reflexão centra-se nas atribuições do psicólogo escolar. Os psicólogos escolares continuam, maioritariamente, a despender grande parte do seu tempo e esforço em casos individuais de alunos que precisam de intervenções indicadas, perpetuando uma contínua intervenção em crise. Contudo, o aumento da prevalência de problemas de saúde mental na população sugere a impossibilidade dos serviços darem resposta a todos os casos e da prevenção dos problemas e a promoção da saúde mental serem a única via economicamente viável (Zubrick, Silburn, Burton, & Blair, 2000). Mudar para um sistema mais vasto de inclusão do modelo de prevenção/promocional requer considerar, não apenas as necessidades dos alunos que estão a experienciar dificuldades significativas, mas a de todos os alunos (Harlacher & Merrell, 2010; Merrell & Gueldner, 2010). Os resultados relativos à eficácia da implementação do programa "Devagar se vai ao Longe" por uma psicóloga escolar evidenciam a utilidade de uma mudança de paradigma no trabalho desenvolvido pelos psicólogos em contexto escolar, assim como o seu papel na implementação e manutenção de programas de prevenção de qualidade nas nossas escolas (Domitrovich & Greenberg, 2000).

Por último, saliente-se que o *background*, formação, atitudes, competências de gestão da sala de aula e estilos de *coping* dos educadores variam muito (Jennings & Greenberg, 2009). Poucos receberão formação inicial em prevenção ou no desenvolvimento sócioemocional das crianças e adolescentes e muitos chegam às salas de aula com poucas competências para lidar com comportamentos disruptivos e alunos pouco atentos, resultando em níveis elevados de *burnout* (Benner, Beaudoin, Chen, Davis & Ralston, 2010; Greenberg, 2010). Por estes motivos, é imperativa a necessidade de despender tempo na formação dos

educadores sobre o desenvolvimento sócio-emocional (Hallam, 2009), a programação e avaliação de componentes SEL (Denham & Brown, 2010; Gross, 2010), assim como no apoio técnico continuado (*coaching*) e supervisão para facilitar a implementação destas intervenções (Cooke et al., 2007; Dane & Schneider, 1998; Domitrovich et al., 2007; Domitrovich & Greenberg, 2000; Dusenbury et al., 2003; Merrell & Gueldner, 2010; Mihalic, Fagan, & Argamaso, 2008). A formação neste campo de estudo deveria idealmente principiar na formação inicial dos psicólogos e educadores e continuar mais tarde mediante a frequência de *workshops* e formação pós-graduada com uma forte componente prática onde seja possível uma reflexão em torno das competências sócioemocionais dos futuros implementadores de programas SEL, através de atividades experienciais e com uma forte componente interativa.

Os currículos universais sócioemocionais deverão ser uma peça-chave a qual produz um impacto positivo nas competências sócioemocionais e no rendimento académico das crianças e jovens e ainda assim poderão não ser intensivos o suficiente para satisfazer as necessidades de saúde mental de todas as crianças. Não obstante, eles representam um marco importante no sentido de protegê-las da exposição a riscos prévios ou futuros (Domitrovich et al., 2007; Merrell & Buchanan, 2006), atuando como uma "cascata" de intervenções preventivas (Merrell & Buchanan, 2006). Por este motivo merecem um lugar de destaque na educação de todas as crianças (CASEL, 2012).

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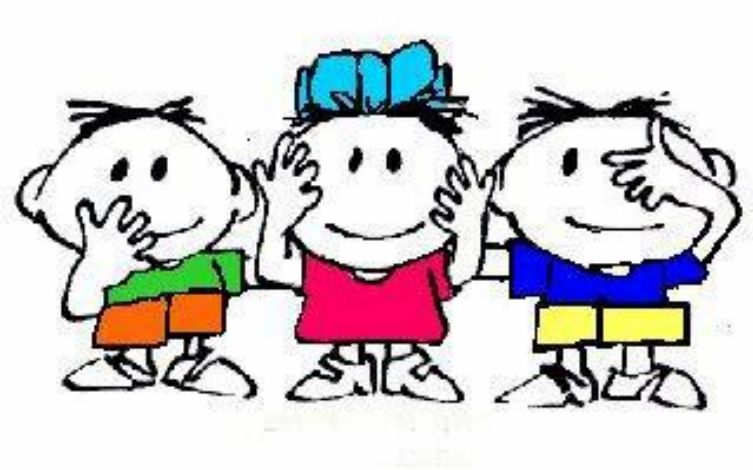
APÊNDICES

APÊNDICE A

Questionário de Avaliação da Eficácia do Programa - Alunos

QUESTIONÁRIO DE AVALIAÇÃO DE COMPETÊNCIAS SOCIAIS E EMOCIONAIS – ALUNOS



Os questionários que se seguem foram feitos para saber a tua opinião sobre algumas das tuas competências sociais e emocionais. Não há respostas certas, nem erradas. Não estás a responder a um teste. O importante é aprender mais sobre a tua opinião pessoal e a de outros colegas da tua idade, porque nem todos pensam da mesma maneira.

É muito importante que respondas a todas as perguntas com calma, concentração e sinceridade. Se tiveres dúvidas pede ajuda, colocando o dedo no ar.

Obrigada pela tua ajuda!

Vamos começar por pedir-te que preenchas o quadro seguinte com algumas informações sobre ti.

Nome: _____

Data de hoje: ___/___/___ Sexo: □ Rapaz □ Rapariga (coloca uma cruz)

Escola: _____ Em que ano andas? _____

Achas que és (coloca uma cruz na opção correcta):

___ Um dos melhores alunos.

___ Tens melhores resultados do que a maioria dos outros alunos.

___ Tens os mesmos resultados que os teus colegas.

___ Não tens tão bons resultados como os teus colegas.

Estás preparado? Então volta para a página seguinte e começa o primeiro questionário.

STAIC

Vais encontrar frases que dizem algo de ti próprio(a). Lê cada frase e assinala, com um círculo, a resposta que melhor descreva COMO TE SENTES EM GERAL. Não demores muito tempo em cada frase.

	Quase nunca	Às vezes	Frequente-mente
1. Preocupa-me cometer erros			
2. Sinto vontade de chorar			
3. Sinto-me infeliz			
4. Custa-me tomar decisões			
5. Custa-me enfrentar os meus problemas			
6. Preocupo-me demasiado			
7. Ando incomodado(a)			
8. Pensamentos sem importância vêm-me à cabeça e incomodam-me			
9. Preocupam-me as coisas da Escola			
10. Custa-me decidir o que tenho que fazer			
11. Noto que o meu coração bate mais depressa			
12. Mesmo que não diga, tenho medo			
13. Preocupo-me com as coisas que podem acontecer			
14. Custa-me adormecer à noite			
15. Tenho sensações estranhas no Estômago			
16. Preocupo-me com o que os outros pensam de mim			
17. Os problemas afectam-me tanto que durante algum tempo não consigo esquecê-los			
18. Levo as coisas demasiado a sério			
19. Encontro muitas dificuldades na minha vida			
20. Sinto-me menos feliz que as pessoas da minha idade			

Eu vou-te contar algumas histórias que se passaram com meninos da tua idade e gostaria que tu me dissesses como é que eles se estão a sentir ***contentes, tristes, zangados ou assustados***. Por vezes, poderá parecer-te que eles estão a sentir duas emoções diferentes, por exemplo zanga e tristeza. Se isto acontecer, eu gostaria que tu escolhesses a emoção mais forte que eles estão a sentir. Outras vezes, eles poderão não sentir nenhuma emoção forte e tu podes dizer que eles se estão a sentir *normais*. Não escolhas ***normal*** quando não tiveres a certeza do que os meninos estão a sentir, pensa um pouco mais até descobrires. Isto é, se tu achas que os meninos estão a sentir alguma coisa, quero que tu tentes adivinhar o que é, está bem?

	Contente	Triste	Zangado/a	Assustado/a	Normal
1.O João não tem vontade de jogar à bola no recreio, fica sentado sozinho. Achas que o João se sente, contente, triste, zangado, assustado ou normal?					
2. Tu vês a Sónia a bater na Ivone. Quando a Sónia bate na Ivone tu pensas que a Sónia se sente contente, triste, zangada, assustada ou normal?					
3.Em vez de brincar com o seu novo brinquedo o Mário senta-se apenas. Achas que o Mário se sente contente, triste, zangado, assustado ou normal?					
4. No recreio tu vês o Marco a brincar com outras crianças, o Marco apanha a bola e o seu corpo fica paralisado (ou imóvel). Achas que o Marco se sente contente, triste, zangado, assustado ou normal?					
5. Tu vês uma amiga tua a correr para se juntar a ti e aos teus colegas no jogo. Achas que ela se sente contente, triste, zangada, assustada ou normal?					
6. O Manuel não quer que ninguém fale com ele. Achas que o Manuel se sente, contente, triste, zangado, assustado ou normal?					
7. Quando a professora faz uma pergunta à Laura ela fica a olhar para o chão. Achas que a Laura se sente contente, triste, zangada, assustada ou normal?					
8. O José está a ser simpático para toda a gente. Achas que o José se sente contente, triste, zangado, assustado ou normal?					
9. O David chama um nome feio ao Renato. Quando o David chama um nome feio ao Renato achas que ele se sente contente, triste, zangado, assustado ou normal?					
10. O Gil está a falar baixinho e tem os olhos cheios de água (ou lágrimas). Achas que o Gil se sente contente, triste, zangado, assustado ou normal?					
11. Um grupo de crianças é chamado ao Gabinete do Director da escola. Tu vês o Paulo a afastar-se muito devagarinho do grupo. Achas que o Paulo se sente contente, triste, zangado, assustado ou normal?					
12. A Rosa tem os braços cruzados. Tu pensas que a Rosa se sente contente, triste, zangada, assustada ou normal?					
13. A Joana não tem vontade de jogar à bola no recreio fica sentada sozinha. Achas que a Joana se sente, contente, triste, zangada, assustada ou normal?					
14. Tu vês a Jessica a saltitar e assobiar pelo corredor fora. Achas que a Jessica se sente contente, triste, zangada, assustada ou normal?					
15. A Júlia caminha devagar e cabisbaixa (de cabeça baixada). Achas que a Júlia se sente contente, triste, zangada, assustada ou normal?					

(EACE- Escala de Avaliação do Conhecimento Emocional versão traduzida por Alves (2006) da ACES desenvolvido por Schultz, Izard & Bear, 2002)

Eu vou-te contar algumas histórias que se passaram com meninos da tua idade e gostaria que tu me dissesses como é que eles se estão a sentir ***contentes, tristes, zangados ou assustados***. Por vezes, poderá parecer-te que eles estão a sentir duas emoções diferentes, por exemplo tristeza e zanga. Se isto acontecer, eu gostaria que tu escolhesses a emoção mais forte que eles estão a sentir. Outras vezes, eles poderão não sentir nenhuma emoção forte e tu podes dizer que eles se estão a sentir *normais*. Não escolhas ***normal*** quando não tiveres a certeza do que os meninos estão a sentir, pensa um pouco mais até descobrires. Isto é, se tu achas que os meninos estão sentir alguma coisa quero que tu tentes adivinhar o que é, está bem?

	Contente	Triste	Zangado/a	Assustado/a	Normal
1. Os pais do António disseram-lhe que o iam levar à Feira Popular. Na hora de sair os pais disseram-lhe que já não podiam ir com ele. Achas que o António se sente contente, triste, zangado, assustado ou normal?					
2. A Cátia acabou de pintar um desenho. Tu dizes que o desenho dela está muito bonito. Achas que a Cátia se sente contente, triste, zangada, assustada ou normal?					
3. A Maria cuida da sua gata de quem gosta muito. Um dia a gatinha desapareceu e não voltou mais. Achas que a Maria se sente contente, triste, zangada, assustada ou normal?					
4. O Jorge caminha ao longo do corredor e um rapaz mais velho manda-o sair do caminho. Achas que o Jorge se sente contente, triste, zangado, assustado ou normal?					
5. A Mónica está a construir uma torre de blocos. Uma outra criança deita a torre abaixo e sorri. Achas que a Mónica se sente contente, triste, zangada, assustada ou normal?					
6. O Sérgio deixa o Rui brincar com o seu brinquedo favorito. O Rui brinca com o brinquedo e estraga-o. Achas que o Sérgio se sente contente, triste, zangado, assustado ou normal?					
7. O Luís está na fila para o almoço. O Dário passa-lhe à frente, sem lhe pedir. Achas que o Luís se sente contente, triste, zangado, assustado ou normal?					
8. A Sara estava a andar de bicicleta. Numa descida a bicicleta começou a andar mais depressa do que ela esperava. Achas que a Sara se sente contente, triste, zangada, assustada ou normal?					
9. O Alexandre fez um cartão bonito para o seu amigo João. O João gostou muito do cartão. Achas que o Alexandre se sente contente, triste, zangado, assustado ou normal?					
10. O avô da Maria morreu. Achas que a Maria se sente contente, triste, zangada, assustada ou normal?					
11. Os pais do Manuel estão a discutir no quarto e ele ouve-os a gritar. Achas que Manuel se sente contente, triste, zangado, assustado ou normal?					
12. O Bruno está no parque e a sua mãe dá-lhe um gelado. Enquanto que o comia, acidentalmente deixou-o cair. Achas que o Bruno se sente contente, triste, zangado, assustado ou normal?					
13. O João trouxe a sua guloseima favorita para o lanche. Um rapaz vê a sua guloseima, tirou-a e comeu-a. Achas que o João se sente contente, triste, zangado, assustado ou normal?					
14.O Miguel está a brincar no pinhal com o André. O André corre para longe e deixa o Miguel sozinho. Está a escurecer. Achas que o Miguel se sente contente, triste, zangado, assustado ou normal?					
15. É o primeiro dia de escola. Uma amiga tua, não te viu durante todo o Verão. E vê-te na sala de aula. Achas que ela se sente contente, triste, zangada, assustada ou normal?					

(EACE- Escala de Avaliação do Conhecimento Emocional versão traduzida por Alves (2006) da ACES desenvolvido por Schultz, Izard & Bear, 2002)

Eu vou-te mostrar algumas fotografias de crianças e gostaria que tu me dissesses como é que eles se estão a sentir ***contentes, tristes, zangados ou assustados***. Por vezes, poderá parecer-te que eles estão a sentir duas emoções, por exemplo zanga e tristeza. Se isto acontecer, eu gostaria que tu escolhesses a emoção mais forte que eles estão a sentir. Outras vezes, eles poderão não sentir nenhuma emoção forte e tu podes dizer que eles se estão a sentir normais. Não escolhas "***normal***" quando não tiveres a certeza do que os meninos estão a sentir, pensa um pouco mais até descobrires. Se tu achas que os meninos estão a sentir alguma coisa, quero que tu tentes adivinhar o que é, está bem?

Fotografia Nº	Contente	Triste	Assustado/a	Zangado/a	Normal
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

U.PORTO **(*EACE*- Escala de Avaliação do Conhecimento Emocional versão traduzida por Alves (2006) da *ACES* desenvolvido por Schultz, Izard & Bear, 2002)**

Se já terminaste o questionário aproveita o teu tempo livre para fazeres, em baixo, um desenho à tua escolha.

OBRIGADA PELA TUA COLABORAÇÃO!

APÊNDICE B

Questionário de Avaliação da Eficácia do Programa - Professores

AVALIAÇÃO DA EFICÁCIA DO PROGRAMA "DEVAGAR SE VAI AO LONGE" – PROFESSORES

Este questionário pretende avaliar a eficácia de um programa de desenvolvimento de competências sociais e emocionais em alunos do 4º ano de escolaridade e integra uma investigação de doutoramento em Psicologia da Educação.

Nesse sentido, a sua participação e opinião enquanto professor(a) é essencial para que sejam obtidos, não só dados demográficos, mas também dados fiáveis da evolução das competências sociais, problemas sociais e níveis de agressividade dos seus alunos, ao longo do ano lectivo.

Os dados recolhidos são confidenciais e destinam-se unicamente para fins de investigação.

Vamos começar por solicitar-lhe o preenchimento do quadro em baixo com alguns dados demográficos sobre os alunos da sua turma. Por favor, preencha um questionário por aluno.

Nome do(a) Professor(a): _____

Nome do(a) aluno(a): _____

Data de hoje: ___/___/___ Sexo: □ Rapaz □ Rapariga

Idade: _____ Data de Nascimento: ___/___/___

Escola: _____ Ano de escolaridade: _____

Nº de Reprovações: _____

Assiduidade: ___ Pouco assíduo(a) ___ Assíduo(a) ___ Muito assíduo(a)

Rendimento Escolar: ___ Muito Fraco ___ Fraco ___ Satisfaz Minimamente

___ Satisfaz ___ Satisfaz Bem ___ Satisfaz Muito Bem

Tem ou teve acompanhamento psicológico/ pedo-psiquiátrico? ___ Sim ___ Não

Se sim, qual o motivo? _____

_____

Pai Profissão: _____ Nível de Escolaridade: _____

Mãe Profissão: _____ Nível de Escolaridade: _____

Com quem vive o(a) aluno(a)? _____

_____

Observações : _____

SSBS – ESCALA DE COMPETÊNCIAS SOCIAIS

Classifique os comportamentos dos alunos, com base nas suas observações dos mesmos, nos últimos dois meses. Coloque, por favor, uma cruz no 1 (Nunca), se o aluno não exibe o comportamento em questão ou se não teve oportunidade de o observar; no 5 (Frequentemente) se o aluno o exibe frequentemente; ou no 2, 3 (Às vezes) ou 4 se o aluno o exibe às vezes, entre os dois extremos da escala, baseado no seu julgamento de quão frequentemente ele ocorre. Complete, por favor todos os itens.

Obrigada pela sua colaboração!

	1	2	3	4	5
1. Coopera com os outros alunos					
2. Transita entre diferentes actividades de forma apropriada					
3. Completa os trabalhos escolares sem necessidade de ser lembrado(a) disso					
4. Oferece ajuda aos outros alunos quando eles o necessitam					
5. Participa activamente em discussões e actividades de grupo					
6. Compreende os problemas e necessidades dos outros alunos					
7. Permanece calmo(a) quando surgem problemas					
8. Escuta e executa as instruções fornecidas pelos professores					
9. Convida outros alunos a participar nas actividades					
10. Pede clarificação sobre instruções dadas, de forma apropriada					
11. Tem capacidades e habilidades que são admiradas pelos colegas					
12. Aceita os outros alunos					
13. Completa as tarefas, escolares ou outras, de forma independente					
14. Completa as tarefas escolares dentro do tempo determinado					
15. Cede ou chega a um compromisso com os colegas quando necessário					
16. Cumpre as regras da escola e da turma					
17. Comporta-se de forma adequada na escola					
18. Pede ajuda de forma apropriada					
19. Interage com uma grande variedade de colegas					
20. Produz trabalho de qualidade aceitável para o seu nível de competência					
21. É bom a iniciar ou a juntar-se a conversas com os colegas					
22. É sensível aos sentimentos dos outros alunos					
23. Responde de forma apropriada quando é corrigido pelos professores					
24. Controla o seu temperamento quando está zangado(a)					
25. Entra apropriadamente em actividades que já estão a decorrer com os colegas					
26. Tem boas capacidades de liderança					
27. Ajusta-se a diferentes expectativas comportamentais em contextos diversos					
28. Apercebe-se e elogia os feitos dos outros					
29. É assertivo(a) de forma apropriada quando precisa de o ser					
30. É convidado pelos colegas a juntar-se às actividades					
31. Mostra auto-controlo					
32. É admirado(a) ou respeitado(a) pelos colegas					

TRF - QUESTIONÁRIO DE COMPORTAMENTOS DA CRIANÇA: PROBLEMAS SOCIAIS - PROFESSOR

Segue-se uma lista de itens que descrevem o(a) seu(sua) aluno(a) agora ou nos últimos dois meses. Coloque, por favor, uma cruz no 2 se a afirmação é muito verdadeira ou frequentemente verdadeira, coloque uma cruz no 1 se a afirmação é algumas vezes verdadeira ou coloque uma cruz no 0, se o item não é verdadeiro (tanto quanto sabe).

	0	1	2
1. Não se dá bem com outras crianças			
2. Sente ou queixa-se que ninguém gosta dele(a)			
3. Sente que os outros andam atrás dele(a) para o apanharem; sente-se perseguido(a)			
4. Sente-se sem valor ou inferior aos outros			
5. Fazem pouco dele(a) frequentemente			
6. As outras crianças/ jovens não gostam dele(a)			
7. Agride fisicamente outras pessoas			
8. Ameaça as pessoas			
9. É infeliz, triste ou deprimido(a)			
10. Isola-se, não se mistura, nem estabelece relações com os outros			

QUESTIONÁRIO DE COMPORTAMENTOS AGRESSIVOS – PROFESSOR

Assinale com uma cruz, no quadrado respectivo, tendo em conta a frequência com que o(a) aluno(a) demonstra os comportamentos agressivos abaixo descritos.

Comportamentos Agressivos	Quantas vezes o aluno faz isto?				
Bate, esmurra, dá pontapés, morde ou empurra os colegas.	Nunca	Poucas vezes	Às vezes	Bastantes vezes	Quase sempre
Chama nomes, goza, irrita, chateia, arrelia, grita, faz caretas ou gestos aos colegas.	Nunca	Poucas vezes	Às vezes	Bastantes vezes	Quase sempre
Deixa de parte colegas de grupo, ignora-os, espalha boatos ou mentiras ou estraga amizades.	Nunca	Poucas vezes	Às vezes	Bastantes vezes	Quase sempre
Bate, dá pontapés ou empurra objectos (por exemplo, parede, secretária, mochila, etc.).	Nunca	Poucas vezes	Às vezes	Bastantes vezes	Quase sempre
Quando lhe batem, responde também batendo.	Nunca	Poucas vezes	Às vezes	Bastantes vezes	Quase sempre
Provoca ou ameaça os colegas.	Nunca	Poucas vezes	Às vezes	Bastantes vezes	Quase sempre

Obrigada pela sua colaboração!

APÊNDICE C

Questionário de Avaliação da Satisfação com o Programa – Alunos (Grupo de Intervenção)

QUESTIONÁRIO DE AVALIAÇÃO DA EFICÁCIA E SATISFAÇÃO COM O PROGRAMA "*DEVAGAR SE VAI AO LONGE*" – ALUNOS

Este questionário foi feito para saber a tua opinião sobre o programa "***Devagar se Vai ao Longe***". Responde, por favor, às perguntas seguintes.

1. Gostaste do programa "*Devagar se Vai ao Longe*"?

☐ 1 Nada ☐ 2 Pouco ☐ 3 Assim Assim ☐ 4 Bastante ☐ 5 Muito

2. O que mais gostaste no programa?

_____

_____

3. E o que gostaste menos?

_____

_____

4. Achas que aprendeste coisas importantes?

☐ 1 Nada ☐ 2 Pouco ☐ 3 Assim Assim ☐ 4 Bastante ☐ 5 Muito

5. Gostarias de voltar a ter este programa no próximo ano?

☐ 1 Nada ☐ 2 Pouco ☐ 3 Assim Assim ☐ 4 Bastante ☐ 5 Muito

Obrigada pela tua ajuda!

APÊNDICE D

Questionário de Avaliação da Satisfação com o Programa – Professores (Grupo de Intervenção)

QUESTIONÁRIO DE AVALIAÇÃO DA SATISFAÇÃO COM AS ACTIVIDADES DE ORIGAMI – ALUNOS

Este questionário foi feito para saber a tua opinião sobre as actividades de **Origami**. Responde, por favor, às perguntas seguintes.

1. Gostaste das actividades de Origami?

☐ 1 Nada ☐ 2 Pouco ☐ 3 Assim Assim ☐ 4 Bastante ☐ 5 Muito

2. O que mais gostaste nessas actividades?

_____

_____

3. E o que gostaste menos?

_____

_____

4. Achas que aprendeste coisas importantes?

☐ 1 Nada ☐ 2 Pouco ☐ 3 Assim Assim ☐ 4 Bastante ☐ 5 Muito

5. Gostarias de voltar a ter actividades de origami no próximo ano?

☐ 1 Nada ☐ 2 Pouco ☐ 3 Assim Assim ☐ 4 Bastante ☐ 5 Muito

Obrigada pela tua ajuda!

APÊNDICE E

Questionário de Avaliação da Satisfação com o Programa – Alunos (Grupo de Controlo)

AVALIAÇÃO DA EFICÁCIA DO PROGRAMA "DEVAGAR SE VAI AO LONGE"E GRAU DE SATISFAÇÃO – PROFESSORES

Este questionário pretende avaliar a eficácia e grau de satisfação com o programa de desenvolvimento de competências sócio-emocionais "*Devagar se Vai ao Longe*". Os dados recolhidos são confidenciais e serão utilizados apenas para fins de investigação.

Responda, por favor, às seguintes questões.

1. Que importância têm para si os programas de desenvolvimento de competências sócio-emocionais, em geral?

☐ 1 Nada ☐ 2 Pouca ☐ 3 Assim Assim ☐ 4 Bastante ☐ 5 Muita

2. Antes do programa "*Devagar se Vai ao Longe*" ter iniciado como classificava (em média) o nível de competências sócio-emocionais dos seus alunos?

☐ 1 Mt Insuficiente ☐ 2 Insuficiente ☐ 3 Suficiente ☐ 4 Bom ☐ 5 Mt Bom

3. Considera que o programa contribuiu para desenvolver as competências sócio-emocionais dos seus alunos?

☐ 1 Nada ☐ 2 Pouco ☐ 3 Assim Assim ☐ 4 Bastante ☐ 5 Muita

4. Quais considera terem sido os pontos fortes deste programa?

_____

_____

5. E os pontos fracos/ a melhorar?

_____

_____

6. No futuro, gostaria de voltar a participar neste programa?

☐ 1 Nada ☐ 2 Pouco ☐ 3 Assim Assim ☐ 4 Bastante ☐ 5 Muita

7. Recomendaria este programa a outros docentes?

☐ 1 Nada ☐ 2 Pouco ☐ 3 Assim Assim ☐ 4 Bastante ☐ 5 Muita

Obrigada pela sua colaboração!

APÊNDICE F

Questionário de Avaliação da Satisfação com o Programa – Professores (Grupo de Controlo)

AVALIAÇÃO DA EFICÁCIA E SATISFAÇÃO COM AS ACTIVIDADES DE ORIGAMI – PROFESSORES

Este questionário pretende avaliar a eficácia e grau de satisfação com as actividades de origami desenvolvidas na sua turma. Os dados recolhidos são confidenciais e serão utilizados apenas para fins de investigação.

Responda, por favor, às seguintes questões.

1. Que importância têm para si os programas desta natureza?

☐ 1 Nada ☐ 2 Pouca ☐ 3 Assim Assim ☐ 4 Bastante ☐ 5 Muita

2. Considera que este programa contribuiu para desenvolver competências nos seus alunos?

☐ 1 Nada ☐ 2 Pouco ☐ 3 Assim Assim ☐ 4 Bastante ☐ 5 Muita

3. Quais considera terem sido os pontos fortes destas actividades?

_____

_____

4. E os pontos fracos/ a melhorar?

_____

_____

5. No futuro, gostaria de voltar a participar neste programa?

☐ 1 Nada ☐ 2 Pouco ☐ 3 Assim Assim ☐ 4 Bastante ☐ 5 Muita

6. Recomendaria este programa a outros docentes?

☐ 1 Nada ☐ 2 Pouco ☐ 3 Assim Assim ☐ 4 Bastante ☐ 5 Muita

Obrigada pela sua colaboração!